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The Chiriguano and Izozo
[Los Chiriguanos e Izozós]

Max Schmidt

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[Title page]

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Chané SF8
Izozó
Ashluslay SK5

Introduction

C
114 Knowing only the native tribes of Mato Grosso (Brazil) personally through my previous scientific travels, I accepted with much pleasure the proposal of the Sociedad Cientifica del Paraguay to visit the Indians of the Paraguayan Chaco, and as the idea was fully supported by the Comando del Chaco, I render thanks to the Sociedad Cientifico del Paraguay for its support, to the Jefe of the Comando del Chaco Paraguayo, the section leaders, and all the others who co-operated in my expedition. I particularly thank His Most Reverend Excellency, the Archbishop of Asunción, Don Juan Sinforiano Bogarin, for the presentations which he made in my behalf before the Oblates of Immaculate Mary, whose mission is located close to the fort Esteros near the Pilcomayo River. 000

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[131] I set out from Asunción on August 7, 1935, and, passing the fort López de Filippis (Paraguayan Chaco), on August 15 I arrived at the fort of Toledo, where I found a great number of Izozó Indians, who had left their homes in the Parapití Valley because they had been provisionally relocated to the area of Toledo and of the fort "15 de Agosto" /15th of August/.

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C
114 In addition to my ethnological studies and preparations for the coming journey, I attended to the commission of the Paraguayan Red Cross to deliver clothing, goods, and wool among the Izozó Indians, who at the time were in great need. Provided by the Chaco Command at the fort of López de Filippis with two trucks, drivers and helpers, and the necessary provisions, I continued my journey on August 26, heading toward the Pilcomayo River. Beyond Corrales we met the first Indians: they were the Churupí /Chulupi/. In Moreno too, which we reached in the afternoon, almost at nightfall, there were some Churupí who had moved from Muños to this place. On August 27 I arrived at the mission of the Oblates of Immaculate Mary near the fort of Esteros, where these fathers received me in the most friendly manner and provided their most extensive assistance to my studies of the Churupí Indians who were domiciled in or near the mission. They gave me a large ethnological collection of objects of the Churupí Indians, which they presented to the Museo de Historia y Etnographia of The Sociedad Cientifica del Paraguay.

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[126]

Ashluslay SK5
Mataco SI7
Choroti SK6
Tapiete SK13

/1 cont./
000 the Sociedad Cientifica del Paraguay. Having also visited
C A the Churupí Indians at the mission near Lake Escalante, about
M 25 kilometers from the mission at Esteros, I continued my
114 journey on September 5 as far as Linares, where I found a num-
M ber of Mataco Indians, who in part lived in a town some seven
[361] kilometers from Linares and in part had come from the other
side of the Pilcomayo River to Linares.

C /2/ On September 9 I left Linares and on the next day
A 114 arrived in Guachalla, from where I visited the Churupí camp
A /tolderia/ about seven kilometers away.

[361] On September 11 I left Guachalla for the fort of Cururenda,
C where I had the occasion to see the Chorote /Choroti/ Indians,
CI who were living in a camp some three kilometers from
114 CI Cururenda, as well as some Toba and Mataco, who came
[361] from the other side of the Pilcomayo to Cururenda.

C On September 15 I continued my journey as far as Oruro,
T 114 in the environs of which I visited the Tapieté. My escort,
Lieutenant Cabello, who knew these Indians well, took me to
T their two camps, one of which is 15 and the other 32 kilo-
[361] meters from Oruro.

C On September 19 I left Oruro, and passing through
114 Capirendá and Carandayty, in the company of Lieutenant
Diego Corvalan, I arrived at Machareti, where I remained
from September 21-25. Since Machareti is a Chiriguano
town, I had a good chance at this place and at the end of my
journey, to observe this interesting Indian tribe.

Beginning my return on September 25, I passed in succes-
sion through Capirendá, Carandayty, López de Filippis, and
C Puerto Casado, arriving in Asunción on October 8.

[122] Thanks to the great help of the military authorities, it was
possible for me to pass through large areas of the Paraguayan
Chaco during the relatively short time of two months, to get
acquainted with a large number of native tribes of the Chaco,
to take photographs of these tribes, and to make up vocabularies
000 of their different languages. Outside of the Toba, whom I met

Chane SF8
Izozo
Ashluslay SK5

C
114 /2 cont./ outside of the Toba, whom I met
C only in passing. I got to know on this journey the Chiriguano
Ce and the Izozó, who, like the former, speak a dialect of the
[197] Guaraní language; the Tapieté, Churupí, Mataco, and
Chorote. All of these Indian tribes are not unknown in ethno-
C logical literature. On Chiriguano history we are oriented
175 through old documents from even the first years of the Spanish
114 conquest, and we owe to the Franciscan missionaries, who
797 have taught among them for a long time, quite important
A ethnological publications. The Churupí have been studied
114 minutely under the name Ashluslay by Erland Nordenskiöld,
101 and the Oblates of Immaculate Mary in Esteros and Lake
Escalante are striving intensively to make ethnological in-
C vestigations. I have proposed to deal with all of these tribes
121 systematically. This survey will be made on the basis of the
results of my journey, and I begin in this first publication
with the Chiriguano and Izozó.

General Information

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Ce
174 As I said in the introduction to this work, I first met the
361 Chiriguano in Machareti and the Izozó in the area around the
fort of Toledo and in the fort "15 de Agosto," several kilo-
meters from the former two.

C Figure 1[1] presents a view of Machareti, a Chiriguano town
361 created in its present form by the Franciscan mission. When
[632] the Paraguayan army retook Machareti, it had already been
[797] abandoned by the Padres, and now a Chiriguano, in the role
of commissioner /comisario/, is the chief of the town, there
C also being a few caciques. The houses, more or less in the
[342] form of modern ranchos (cf. Figs. 14 and 15 /See p.40 /), are
[363] on both sides of wide streets which run parallel and at right
C angles, as in most of the towns of the former Spanish colonies.
[731] When I was present in Machareti, there was great need /3/
among these Indians because of the severe drought which had
ruined their plantings, which were some distance from the
C town. At the side of the ranchos are often found deposits which
[342] were structures of native houses built on sticks. Although
000

[1] [See P 8 -- AnalyST]

Chane SF8
Izozo

C /3 cont./ Although
799 many primordial customs of the Chiriguano have been lost
177 because of the influence of the missions, there have nevertheless
178 been preserved a sufficient number of native objects
126 to make a relatively complete ethnological collection among
these Indians.

Ce
648 The Izozó, having abandoned their homes in the regions
167 of the lower Parapití River during the Chaco War, had been
361 provisionally moved to the environs of the fort of Toledo and
the fort "15 de Agosto," where they were living in ranchos
Ce abandoned by the soldiers. In the environs of the forts they
241 had scratched out large fields for their plantings, because
311 of the great drought, they had had no chance to plant,
731 with the result that part of them had already returned to the
167 western region when I was in these forts. When I began my
[361] return from Machareti, a large part of them were near the fort
Ce of Carandayty. According to the data kindly given me by the
162 Toledo military authorities, the number of Izozó who had
come to Toledo and "15 de Agosto" up to June 30, 1935,
reached 1,647 adults, 724 minors, and 122 small children,
a total of 2,493 souls. On August 24, the end of my stay in
Toledo, there were in this fort and in "15 de Agosto" only
503 adults, 141 minors, and 26 small children, most of them
having returned to the west by this time.

Ce These Izozó Indians, who speak a dialect of the Guaraní
101 language, indignantly reject the name Chiriguano. They say
[199] that they are Guaraní and Paraguayans and that their name is
Ce Izozó. Up to now I have not seen this name in ethnological
101 literature and it does not appear in Moreno's work, Cuestión
114 de Límites con Bolivia /Question of Boundaries with Bolivia/,
Vol. II. Only on the map of Bolivia drawn by the enginerr
Franz Germann (Hamburg, 1904) is there noted between the
Rio Grande and the Rio Parapití the name "Izozeños." The
Ce Izozó near Toledo told me that their homes were in the region
101 of the estuaries of the lower Parapití. Since these Indians re-
[361] jected not only the name Chiriguano but also the name Chané

/3 cont./

Ce 101 or Tapyi /Tapii/, it was not possible from what they said to
ascertain with which of the tribes known to ethnology they
C [101] can be identified. The Chiriguano call themselves "Mbya."
If the Izozó were a part of them, they would have called them-
Ce 101 17 selves by this name. No doubt they are Chané and that part of the
latter which once had their homes in the Izozó River region,
taking the name of this river for their own. Their culture, as
demonstrated by the objects I collected among them, confirms this opinion. There are some differences between the
objects collected among the Izozó and the Chiriguano in
Machareti, either with regard to the decorations of the baked
clay vessels or with regard to the making of the nets. But in
principle it is not possible to decide whether these differences
C 171 177 128 648 might not be only local differences. In general the culture of
the Chiriguano was diffused in this way throughout the tribes
successively subjugated by them, which is why it is proper to
deal below with the aspects of the culture of the Chiriguano
of Machareti together with that of the Izozó.

C Ce 101 17

Influences on the Culture of the Chiriguano and Izozó, Taken from Historical Data

C Ce [197] At the present time the Chiriguano and Chané form a
cultural entity which can be designated as the culture of the
Chiriguano, because the Guaraní language of the Chiriguano
came to be the common language of the whole group. The
Izozó also belong to this ethnic entity. Thus it is necessary to
consider this entity /4/ as being formed of completely different
tribes. It is also necessary to conceive of their culture as the
product of the fusion of very heterogeneous cultural elements.
Nordenskiöld deals with this question in one of his books (1)

Ee [113]

1. Erland Nordenskiöld: The changes in the material culture of two Indian tribes under the influence of new surroundings. Comparative Ethnological Studies, 2. Göteborg, 1920. Cited in the following: Nord. 2.

Guarani SM4
Chane SF8
I2020

C Ce 101 17

/4 cont./

and divides (2) the sum of Chiriguano cultural elements into different categories depending on whether they received them from the whites, from the culture of the ancient Peruvians, or from the Mataco, Toba, and other tribes of the Chaco, or have them in common with the tribes of the north and the east C Ce 101 17 121 related to them, as well as those that they brought with them from their primordial homes between the Paraná River and the Paraguay River. In what follows we shall often run into this matter, and inasmuch as these cultural influences have taken place in historical times and we know the history of the Chiriguano through existing documents dating from the first days of the Spanish conquest, I would like to make a resumé of these historical data in what follows, insofar as they have influenced the cultural development of the Chiriguano and Chané.

Gi 174

In one of my previous publications which appeared in this journal, entitled "Los Guarayú," I ran into the point at issue, to wit: whether the first Guaraní immigration into the western regions of the Paraguayan Chaco t[illegible] place before the expedition of the Portuguese Alejo García to Peru or whether it took place after that time. In that paper I then deduced that it can be supposed that before Alejo García's expedition there were no Guaraní in the western regions of the Paraguayan Chaco, because no author mentions that García, who was accompanied by many Guaraní, had met other Guaraní in those regions. With this opinion that the Guaraní immigration to the west Gi 175 occurred after García's expedition, which is based principally on indications by Guzmán, the opinions of Manuel Domínguez and Erland Nordenskiöld also agree. This question of the Guaraní invasion into the western part of the Paraguayan Chaco is also dealt with in detail by Fulgencio R. Moreno in his work Cuestión de límites con Bolivia (3). In that place (4) there

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2. Nord. 2, pp. 196-213.

Gi [113]

3. Ministerio de Exteriores. Cuestión de Límites con Bolivia. Negociaciones diplomaticas. 1915-

Guarani SM4

/4 cont./

175
[113]
1927. Second edition. Vol. 2: Réplica a la exposición del Señor Ministro de Bolivia Dr. Don Ricardo Mujia por el Plenipotenciario del Paraguay Don Fulgencio R. Moreno /A reply to the exposition of the Minister of Bolivia, Dr. Don Ricardo Mujia, by the Plenipotentiary of Paraguay, Don Fulgencio R. Moreno/. Asunción, 1929. Cited in what follows: Moreno II. Pages 81-84 and 89-91.

4. Moreno II, pp. 84-89.

is reproduced a document which, I believe, serves to clear
175 up this much discussed point. This is the report that Father
648 Alcaya, Curate of Mataca, wrote for the Viceroy of Peru, the
Marquis of Montes Claros. This report says that the Inca in Peru, before the Spaniards came to Paraguay, commissioned one of his descendants named Guacane to conquer the llanos of Grigota. Guacane's project was quite successful, especially because he had been well received by the great cacique Grigota, who reigned over this province. With the aid of his brother Condori, who was sent after him and to whom was entrusted the exploitation of the mines of Aypurun, he obtained a great deal of gold and silver in the country. The natives respected him and he employed them in tilling maize fields and helped them
175 in hunting. Through the Indians of the llanos rumors of the
648 wealth of the brothers, Guacane and Condori, reached the ears
726 of the Guaraní in Paraguay, who recruited a force of 8,000
Indians and came in three divisions with their women and children, westward from the Xaraye. Of the 8,000 Guaraní, 1,000 remained in the province of Itatim; 2,000 marched against the Inca Mango and were destroyed until they were
[728] reduced to a few by the Peruvians. The largest division, 5,000
Indians, first marched to the region of Santa Cruz de la Sierra, and there they subjugated the humble and unwarlike people of that region. /Plates I-II appear here./ /5/ They remained

[Text Continues on P. 10]

Chane SF8
Izozo

Plate I

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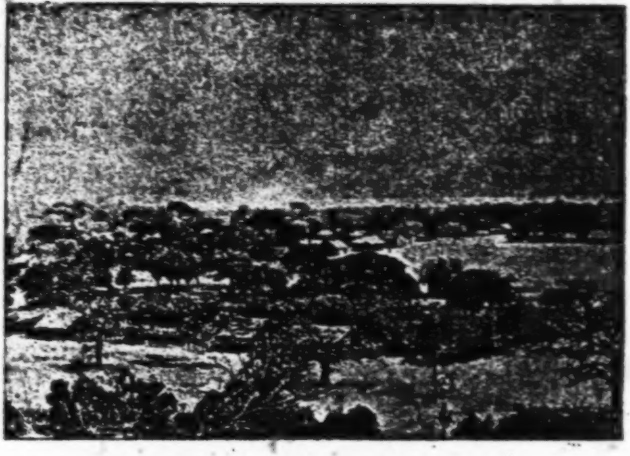

Fig. 1
(I. C. 353) -- Machareti, a Chiriguano town.

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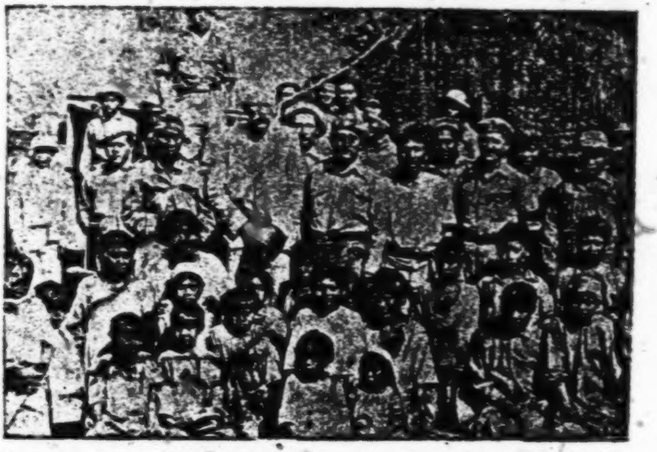

Fig. 2
(I.C. 251) -- Izozó in Toledo, with Paraguayan soldiers and the author.

Plate II

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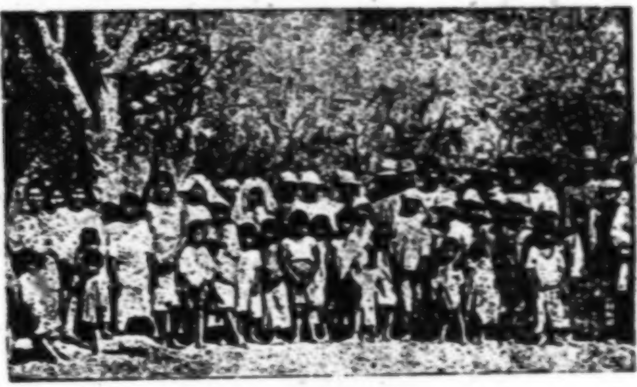

Fig. 3
(I. C. 354) -- Chiriguano in Machareti

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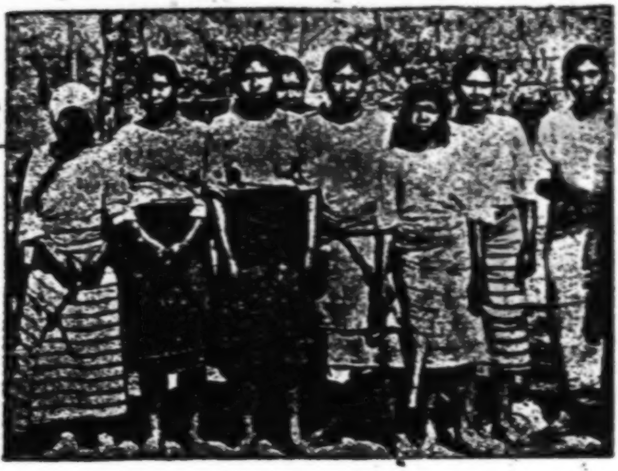

Fig. 4
(I.C. 359) -- Chiriguano women in Machareti

175 648 726 /5 cont./
there for one winter, sending out their spies to the Llanos of Grigota, where King Guacane was resting without care with his men. Unexpectedly one night the Guaraní surprised the King and his men, more than 20,000 Indians, and killed many, among them King Guacane. Grigota, the previous ruler of this country, was seriously wounded. From there the Guaraní victors set out toward the cordillera where Condori, the dead king's brother, was exploring the mines. Leaving their women and children at the foot of the cordillera with a guard, they climbed the mountain and on the following night killed the miners and captured Capitan Condori. The Guaraní then found the fortresses of Guanacopampa and Savaypatta abandoned by their [927] garrisons. In Savaypatta they found only the women of the Incas, whom they took with them as prisoners. They also found a great deal of gold on Aypurun Mountain. After these successes the Guaraní established themselves in the cordillera, where they also remained in the following period. The Guaraní won another victory over the Peruvians when they overcame Capitán Lucana, whom the Inca had charged with rebuilding the fortification of Cerro de Aypurun. The Guaraní came out to meet the Peruvians and, at a short distance, smashed them and killed more than 6,000 of them. But after that their triumphal march against the Peruvians came to an end. Retiring to their headquarters on the Cordillera, the Indians gathered together by Grigota prepared a surprise for them which had complete success. Five hundred Guaraní were killed and 200 fell prisoner and were taken to Cuzco, where they were condemned by the Inca to suffer death by cold on the snow-capped peaks of the Andes.

174 175 167 648 Father Alcaya's report [illegible] much interest because it provides us with two important clues about the first immigration of the Guaraní. The report tells us about the death of King Guacane. According to Alvar Núñez, this king was still alive when Alejo García returned from his expedition to Peru (5).

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5. Moreno II, p. 90.

/5 cont./

174 It thus follows that the battles between the Peruvians and the
175 Guaraní described in Father Alcaya's report and the settling of
167 the Guaraní on the cordillera must have taken place after
645 García's expedition. An even more certain clue is given us by a passage in the report which mentions the name "Mango Inga" (6). The following is said there: The Xaraye "gave them more definite news of the señores and showed them silver clasps and small silver rings for their bows, which King Guacane had sent them from Grigota, scarcely 100 leagues away, and similarly gave them certain news of Mango Inga, who was not resting after his new conquest toward the north and the east, but was hastening to put into effect and overrun the land with his good government." Mango Inga was the legitimate successor of the Inca Huascar, who had been killed by his brother Atahualpa, whom Pizarro, at his request, had helped to realize his claims to the throne and with whom he entered the Inca capital on November 15, 1533. This Inca Manco died after his variable battles with the Spaniards in the year 1544. According to this, the battles between the Peruvians and the Guaraní and the first settlement of the Guaraní on the crests of the cordillera in the west of the Paraguayan Chaco, which was contemporaneous with those battles, must have occurred between 1533 and 1544, and probably at the beginning of this period of time, because the last years of Inca Manco's life were much taken up with his battles against the Spaniards. According to Dr. Manuel Domínguez' opinion (7), García's expedition took place between 1524 and 1526. This is very much in accord with the fact that the Guaraní, who through García's expedition had learned of the riches of Perú, and beyond that had received reports of the riches of the country belonging to the brothers /6/ Guacane and Condori through the Indians of the llanos, determined about ten years later to emigrate in large numbers, accompanied by their women and children, to this rich land. We must then fix the first settlement of the Guaraní in the regions in the west of the Paraguayan Chaco as having taken

6. Moreno II, p. 86.

[113] 7. Dr. Manuel Domínguez: "Paraguay-Bolivia. Cuestión de limites." Lectures. Asunción, 1927, p. 11. Cf. Moreno II, p. 84.

Guarani SM4

/6 cont./

174 place after García's expedition. But it is possible that in the
175 interval, and perhaps also before García's expedition, the
167 Guaraní might have made smaller forays to the western
645 regions "to the land within," as is said in the report of Alvar Núñez Cabeza de Vaca. Doubtless it is one of these forays that is dealt with in the description given to Alvar Núñez by a Guaraní who had lived among the Charayes. The Indians of his generation, that is, the Guaraní of Itatí, "sent out a great call and held a gathering of Indians of the whole land, and they went to the land and the settlement of the land within." They made war upon the Indians of this land and took from them the sheets and jewels that they had of gold and silver, despoiled many towns, and killed many Indians. But afterward their adversaries joined together, attacked them in great number, and killed nearly all of them. The rest fled into the mountains (8). On the sixth day after his departure from Xarayes, Alvar Núñez met some of those Indians who had fled to the desert after their defeat. Some of them, whose age Alvar Núñez calculated to be 35, stated that they were unable to give any information about the route which the Guaraní had then followed in their foray, because they had been very young at the time. Following this information, we must suppose that this unsuccessful foray on the part of the Guaraní to the west must have taken place in the year 1543. Between the expedition of Alvar Núñez and that of the Portuguese Alejo García, which, according to Dr. M. Domínguez, took place between 1524 and 1526, there is a period of about 20 years, and Alvar Núñez could only guess at the age of those Indians who said that they had still been very young at the time of the said foray. Thus this foray might have taken place, according to what is ascertained from the clues based on the age of those

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[113] 8. Moreno II, p. 86. Alvar Núnez Cabeza de Vaca, Comentarios historicos, N. 35, pp. 100, 102, and 103.

Gi /6 cont./
174 Indians, either before or after García's expedition. But in any
175 case, this foray with which we are dealing is not that great
167 Guaraní expedition against Guacane and his brother Condori,
648 since it is related in the document cited that these Guaraní,
c after their victorious battles against Guacane and Condori, had
[101] settled on top of the Sierra, where they also remained after their defeat by Grigota, henceforth being called by the Peruvians by the name Chiriguano. The Guaraní who made the foray to which Alvar Núñez refers were almost all wiped out by their enemies, who were probably Chaco Indians, and only a few survivors escaped, taking refuge in the desert through which they had previously passed.

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[173] In Puerto de los Reyes, Irala received from a Chané cacique who spoke Guaraní the information "that in times past, before
[648] García had come from Brazil to the said Guaraní, a great gathering of the said Guaraní was held in the port that they call Itatin in order to go to search for metal" (9). On this occasion the Guaraní passed through the lands of the Chané and destroyed their houses. Also in this statement of the Chané cacique nothing is said about a permanent settlement of the Guaraní in the west. Rather it says that the Guaraní wanted to "search for" metal. Thus we are also dealing here with a Guaraní foray.

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175 The Guaraní expeditions and emigrations described above
648 were from the beginning connected with hostile contacts with the various native groups of the lands through which they
Gi passed. In all the regions where the Guaraní met other Indians,
[567] they devastated their camps /toldería/ /7/ and carried off
[727] with them as slaves all the inhabitants who had not been killed in the fighting. They were the enemies of all and
Ce were hated by all. The Chané in particular, described as
[648] peaceful and unwarlike, suffered their acts of violence. When
[181] the Guaraní who had emigrated to the west after their defeat
C by Grigota had settled permanently on the cordillera, they
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9. Moreno II, p. 91.

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continued defeating the neighboring Indians and especially those of the llanos, and they took off with them many of these as slaves to serve them as auxiliaries in other forays. When Nuflo de Chaves came to the cordillera, the Chiriguano were coming to make war upon the Indians of Poxo or of Misque, but Nuflo de Chaves upset their arrival and made them break off their hostilities with those Indians and the others of the frontier. (10) In 1560 the violent actions of the Chiriguano

10. Moreno II, p. 77.

against the tribes in their vicinity forced the viceroy of Peru to send Captain Andrés Manso to that region in order to found a town there, thus establishing a defense against the incursions of these Indians (11). The report of the Corregidor of Tomina,

11. Moreno II, p. 261.

Don Juan Arce Alvendin, made in 1618, informs us that the Chiriguano at first lived in peace with Andrés Manso, but later counseled the Chané who had been pacified by Manso to rebel against the Spaniards, and they killed Captain Manso and the rest of the Spaniards of the new town. They took over the land, subjecting the Chané and making them serve as slaves. In the statement of Sebastian Perez Chamoso in 1571 (12), the

12. Moreno II, pp. 106-107.

act of violence of the Chiriguano against the Yanacona and Chicha Indians are mentioned, and it is said that they took Chicha Indians as slaves. In the Decree of the Royal Audiencia in which it was resolved that war was to be waged against the Chiriguano in the year 1583, there is mentioned among many other misdeeds of the Chiriguano the fact that they had also usurped and devastated the lands of the Llanos and the Chané Indians (13). By continually enslaving the Indians of the

13. Moreno II, p. 104.

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/7 cont./ By continually enslaving the Indians of the subjugated tribes, the Chiriguano by the end of the 16th century already had numerous subjects and auxiliaries in their wars. Most of the Tamacocies (later called Chamacoco) and the Chané were among these, and if other documents of 1583 and 1584 relate that the Tamacocies, the Xores, the Mares, and the Yuracares were their allies, it is probable that this was a case of such Indians violently subjugated and used as auxiliaries in war (14). While the Tamacocies (Chamacoco) were subsequently emancipated from their Chiriguano conquerors and emigrated to the east, most of the Chané, who formerly were a very populous nation, remained in subjugation for a long time (15). Because of the poor treatment that the Chiriguano normally accorded them, there was always a contrast between the two nations, and the Chané preferred to be dependent on the Spaniards rather than remain in slavery to the hated Chiriguano (16). According to Corregidor Tomina's report in 1618, already mentioned in what has been written above, the relationship between the Chiriguano population and the Chané population was such that the number of pure Chiriguano was smaller than the number of their subjects. According to the estimate made in this connection, the population of the Chiriguano of the Cordillera consisted of 1,500 pure Chiriguano, among whom were distributed 10,000 Chané. Among the 400 Chiriguano of the province of Machareti were distributed 5,000 Chané slaves. Yet for several centuries the Chané must have remained in harsh slavery to the Chiriguano until, in the second half of the 19th century, the formidable resistance of the Chiriguano was broken, and, after a severe blow,

14. Moreno II, pp. 72 and 73.

15. Moreno II, p. 249.

16. Moreno II, p. 250.

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they definitively lost their independence, being left subject to the whites (17). /8/ From this time also the Chané freed themselves from the oppression of their old masters, forming their own separate towns in the midst of their former masters (18).

In addition, the final insurrection of the Chiriguano in the year 1890 was put down by the Bolivians: and for that reason the situation of the Chané was not modified, and so it is that the explorer Erland v. Nordenskiöld found them still under the same conditions (19).

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Having described above the history of Chiriguano relations with the ancient Peruvians and the other Indian tribes, we have yet to deal also with their relations with the whites, that is, with the Spaniards or Bolivians, who little by little occupied their territory. We must stress in the first place the fact that the first whites who came to their territory and to the adjacent llanos were not any novelty to them, since even before their emigration the Chiriguano had met these people in their native land between the upper Paraná River and the Paraguay. Because of the initial attitude of the Guaraní on meeting the conquistadors, it is evident that both parties had the same aim, that of getting rich from the wealth of the rich lands of the west, of which they had heard. In order to attain

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17. Moreno II, pp. 253 and 254.

18. Father Alejandro Corrado in the year 1880. In Moreno II, p. 254.

19. Erland Nordenskiöld: Indianerleben. El Gran Chaco (Südamerika /Indian Life. The Gran Chaco (South America)/. Leipzig, 1912, pp. 148 ff. Cited in what follows: Nord 1.

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this common end, the Guaraní had first favored the conquistadors, giving them important information about the rich land and the ways to get there, and placing themselves at their disposal as auxiliaries in war. According to Guzman, the Portuguese Alejo García took with him 2,000 of these Guaraní from the Paraguay on his expedition to Peru, and if Guzman says that that expedition of García's was the cause of the subsequent expedition of the Guaraní to the west and of the emigration of a great number of them to the western regions of the Paraguayan Chaco, we ought not to reject this opinion, limiting it only in that sense that García's expedition might have been one of the causes of that emigration. When Nuflo de Chaves on his expedition later met the Guaraní of the cacique Vanbaguazu, they received him in a friendly way, oriented him with reference to the rich land and the routes there, and gave him companions for his trip (20).

20. Moreno II, p. 55.

The first of the conquistadors whom the Guaraní met after their emigration to the Cordillera, henceforth called the Chiriguano of the Cordillera, was Captain Domingo de Irala. According to Father Alcaya's report, when Irala arrived in these regions, he sent a Guaraní of his council to make overtures to the Chiriguano Indians, and in what follows the report says literally: "... and many of them came to offer him peace." But in spite of this peace, the Chiriguano did not wish to show him the gold mines and also kept Captain Condori, whom they had captured in their expedition against the Peruvians and whom they now turned over to Captain Irala, as an expert, from finding out anything about the mines (21).

21. Moreno II, p. 92.

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In 1560 the two conquistadors, Nuflo de Chaves and Andrés Manso, arrived in the Chiriguano region in the Vitupue Province (22). In Gabriel Paniagua de Loayza's letter

22. Moreno II, p. 264.

to the Royal Audiencia in 1584, we learn that the Chiriguano of the Sierra, when Nuflo de Chaves arrived for the first time in their land, were about to make war on the Indians of Poxo or of Misque. As has already been mentioned above, Nuflo de Chaves upset their plans and made them cease hostilities (23).

23. Moreno II, p. 77.

Through the division of territories that took place later between Nuflo de Chaves and Andrés Manso, the former received the /9/ northern territories and the latter the southern ones. While Nuflo de Chaves had to deal principally with the *Guaraní* Itatines, later called Itatines-*Guarayú*, who had emigrated into those regions located more to the north and who in a little while killed the valiant conquistador, it was from the beginning Andrés Manso's mission to arrange relationships with the Chiriguano of the Sierra and to put an end to their violent acts. At first Manso managed to enter into peaceful relations with most of the Chiriguano and to put them in service as vassals; but it seems that they were involved from the very beginning in the differences that existed between Nuflo de Chaves and Andrés Manso. A document of 1501, the "Testimonio del Escribano Francisco Gallego /Testimony of the Clerk Francisco Gallego/" (24), gives interesting comments

24. Moreno II, pp. 273 and 274.

upon this matter. He says that in 1560 a Chiriguano Indian came as a delegate of the cacique Bitupue and other caciques to Nuflo de Chaves to complain about Andrés Manso's conduct and at the same time to ask him what they should do. While

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Nuflo de Chaves, as has been mentioned, had prohibited the Chiriguano from continuing their acts of violence upon the other Indians, a short time later Manso made them join up to go to war against the Indians of the llanos. The Chiriguano, having learned of Captain Manso's intentions, all returned to their old ways. Manso again called them to go to war against the llanos Indians, and he took with him several Chiriguano caciques. When it seemed to him that they were taking him along a wrong path, he killed a Chiriguano Indian and ordered another one's hand cut off. He also killed a messenger of the cacique Botipue. We learn from this letter that the hostility which shortly thereafter broke out in the peaceful relations between the Chiriguano and Andrés Manso, and which cost considerable effort, expense, and sacrifice to the Spaniards and later to the Bolivians, was motivated, at least in great part, by the violent acts of the first whites who had relations with these Indians. This guilt of the Spaniards in the continual hostilities with the Chiriguano was frankly admitted by the Maestro General of the Province, Don Salvador Pasit, in the year 1778 (25).

25. Moreno II, p. 281.

He sent an order to all the soldiers that they suspend their activities against the Chiriguano, stating that the attitude of the Chiriguano was provoked by the introduction of the Spaniards into their lands, in which they had established estancias and herds. The beginning of the hostilities between the Spaniards and the Chiriguano was due to the latter, who suddenly attacked the town of Condorillo, or Santo Domingo de la Nueva Rioja, founded by Andrés Manso, and killed the latter, together with all the other Spaniards, and burned the town (26).

26. Moreno II, p. 281.

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THE same fate befell the town of Barranca founded by Ñuflo de Chaves and Captain Miguel Martin, and their men in the town of Lagunilla. Moreover, nine of Ñuflo de Chaves' men, as well as Captain Pedro de Castro, who had been charged with rebuilding the destroyed town of Santo Domingo de Nueva Rioja, were killed (27). The attacks and robberies of the Chiriguano against the Spanish settlers were so frequent and continual at the end of the 16th century that they were in constant danger, and communications between the several larger towns were quite difficult (28). The various Chiriguano factions had divided among themselves the land where they were to make the attacks (29). The expedition of the Viceroy Don Francisco de Toledo, with many people and much equipment and at great expense, had no success whatsoever (30). The Chiriguano continued robbing and attacking. From time to time occasional expeditions were sent to punish them, which, in passing, burned a few rancherias and maize fields /10/ and killed some of them (31), but they never had a decisive success, and this situation still continued for two centuries in an almost unchanging form (32). But despite these hostilities, there were

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27. Moreno II, p. 114.

28. Moreno II, pp. 102-104, 106, and 107.

29. Moreno II, p. 120.

30. Moreno II, p. 114.

31. Moreno II, pp. 116-118.

32. Moreno II, p. 273.

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some relations between the Chiriguano and the Spaniards from the earliest times. According to the Relación de la Annua de la Compañía de Jesús /Annual Report of the Company of Jesus/ for the year 1596, there had been obtained from Potosí and the Charcas many ways and means for bringing them toward peace, considering the very little hope of pacifying them by arms (33) and, according to the same report, already at that time some Spaniards were going in and out of there to deal with them, and also the Chiriguano were coming both to Potosí and to the Charcas for the same purpose. In addition, Techo, who wrote his Historia de la Provincia del Paraguay in the second half of the 17th century, relates that the Chiriguano sold their prisoners of war to the Spaniards. "They lost no opportunity to devote themselves to this business ; they competed with the Spaniards themselves" (34).

According to a communication from Escribano Mosquera in 1573 (35), there were already some Spaniards living among the Chiriguano at that time. This gentleman had heard of two Spaniards and a mestizo among them, who were probably prisoners of war.

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33. Moreno II, p. 107 /the first figure of this page number is missing in the original text and has been supplied here on the basis of a previous citation./

34. Moreno II, p. 207.

35. Certification of Escribano Mosquera. According to Moreno II, p. 115.

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At the end of the 18th century relations between the Chiriguano and the Spaniards modified to the point that from this time on the mission managed to propagate the faith somewhat more among the Chiriguano. In 1779 the Intendente of Cochabama, Don Tomás Leso, after a bitter struggle, defeated the Saypuru faction, which was the one most feared. Later the reduction of Florida was formed on the western shore of the Guapay, with some hundreds of families who had not assisted the Saypurú faction and so, fearing their vengeance, followed the Spaniards (36). Several years later a few other

36. Moreno II, p. 244.

missions were founded by the Franciscans, together with the fort at Saypurú, as a defense for the missions. But by 1799 the Chiriguano had attacked six of these missions, devastating them completely (37). A strong campaign against the

37. Moreno II, p. 245.

Chiriguano, directed by Intendente Viedma in person, had not had any success at all, the army of 2,000 men having turned back when their officers were killed by the enemy. In spite of this the missionaries repaired the destroyed reductions (38).

38. Moreno II, p. 246.

According to the notes of Father Antonio Comajuncosa (39),

39. Moreno II, pp. 246 and 247. A historical manifesto of what the missionaries of Tarija have wrought.

there already existed in the year 1810, 18 missions among the Chiriguano in the southern zone of the Pilcomayo River.
000 Through the influence of the missions and through both violent

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/10 cont./ Through the influence of the missions and through both violent and peaceful means of the Spaniards and, later, by the Bolivians, conterminous with the Chiriguano, little by little most of the Chiriguano came over to their side, so that the power of the Chiriguano tribe, in another time so strong and invincible, was weakened (40). Thus it happened that in

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40. José Cardúz: Las Misiones Franciscanas entre los infieles de Bolivia /The Franciscan Missions among the Infidels of Bolivia/. Barcelona, 1886. From Moreno II, pp. 248 and 249.

1875 the inhabitants of the neighboring provinces were able to give a final blow to the last segments of independent Chiriguano, subjugating them completely and obliging the defeated factions who refused to submit to disperse into other lands, some of them taking refuge in the Chaco among the Toba and Tapieté (40) /see footnote 40 above/. Nevertheless, this was not the final fight between the Chiriguano and the whites, as Cardúz supposed in 1885. A part of the Chiriguano in 1890 attempted one last rebellion against the Bolivians. About 5,000 Indians gathered on the Boynove plain near Curuyuqui, fought for a whole day against the Bolivians, who were assisted by some thousand Indians of the same tribe. At nightfall the heated battle had not yet been decided, but in the /11/ night the Indians lost their spirit in the face of the superiority of modern arms and left their trenches (41). Also,

41. Nord. 1, p. 168.

after this defeat one of the caciques, named Cayahari, preferred to take flight rather than surrender to the Bolivians. They say that he settled in the area of a large lake far from the whites (42).

42. Nord. 1, p. 161.

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C. Gi 175 178 167

The preceding historical sketch has shown that we can ascertain the history of the Chiriguano by means of numerous documents over a period of 400 years, up to that epoch so important for their future fate and culture, during which they emigrated from their native country and settled in a distant region. In this new country they found completely different conditions of life. All three factors by which all human life and all human culture are influenced and conditioned, nature, social state, and the spiritual culture of the ambient, were different in the new surroundings, and for that reason during the four centuries of their history they had to modify their primordial culture, which they had brought from their native country.

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The products of their present-day culture, dealt with in this publication by means of the ethnographic collection that I brought from Machareti and Toledo, must be regarded as the result of numerous and different interacting factors. Some of the products of the old culture were kept in a fairly primordial form up to today; others were modified, either being perfected or in some cases degenerating. Many were completely lost because of the modified circumstances, and some were added as a result of the assimilation of outside cultures.

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As we have already said, the question of the influences on Chiriguano culture has been extensively dealt with by Erland Nordenskiöld (43). While the Chiriguano received relatively

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43. Nord. 2, pp. 195-213. Cf. Alfred Métraux: "Etudes sur la civilisation des indiens Chiriguano /Studies on the Culture of the Chiriguano Indians/," Revista del Instituto de Etnología de la Universidad Nacional de Tucumán. Tucumán. Vol. I, No. 3 (cited in what follows as Métraux I), pp. 299 and 300.

C /11 cont./

Gi little from the Indians of the Chaco, we must derive the most
177 important modifications in their culture from the influences
174 of the ancient Peruvian culture. Because of the short duration of the Inca Empire after the time of the immigration of the Chiriguano, we must suppose that these influences were less direct influences than indirect ones through the confluent peoples of the mountainous land of Peru and Bolivia, who had been in contact with the ancient Peruvians for a long time and many of whom had been subjugated by the Chiriguano and made to enter into their community as slaves or vassals.
Ce We know that the culture of the Chané, who made up the greater
[177] part of the Chiriguano population, had contact with the ancient culture of the Peruvians. In contrast with the influence of the ancient Peruvian culture, the influence of the whites had rather more negative and destructive effects than constructive ones on the primordial culture of the Chiriguano and the Chané, leaving many native industries superfluous because it was more convenient to replace their products with imported merchandise.

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Ce In the respective chapters that deal with the various devel-
128 opments of the culture of the Chiriguano and Chané, we shall expound the details of these cultural influences.

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Physical Characteristics

Chiriguano and Chané Types Photographed in Machareti and Toledo

I.C. 354.	Group of Chiriguano men, women, and children. Machareti. (Fig. 3.)
I.C. 335.	Chiriguano men. Machareti. (Fig. 6.)
I.C. 361.	Chiriguano children. Machareti. (Fig. 7.)
I.C. 359.	Chiriguano women. Machareti. (Fig. 4.)
I.C. 360.	Chiriguano women with babies. (Fig. 5.)
I.C. 362.	Chiriguano children. (Fig. 8.)
I.C. 243.	Izozó cacique. Toledo. (Fig. 10.)
I.C. 244.	Izozó boy. Toledo. (Fig. 11.)
I.C. 245.	Izozó lad. Toledo. (Fig. 13.)

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000 I.C. 246. Izozó cacique with his family. Near Toledo. (Fig. 12.)
I.C. 249. Izozó man with tembetá /labret/. Near Toledo. (Fig. 27.)
I.C. 251. Izozó in Toledo with soldiers and the author. (Fig. 2.)
I.C. 330. Izozó men. Near Toledo. (Fig. 9.)

C 144 648 Ce 648 From the preceding historical sketch it can be seen that the ethnic entity "Chiriguano-Chané," with regard to its physical characteristics, is made up of an ethnic mixture of absolutely heterogeneous elements. We have told how the Chiriguano for centuries captured many prisoners, incorporating them into their community, and how at the end of the 16th century the number of Chané incorporated among them was much larger than that of the pure Guaraní-Chiriguano. Although the Chané, belonging to the linguistic group of the Aruacos /Arawak/, were a peaceful nation and were not equal in strength to the pure Chiriguano, their culture, which for a long time was in contact with that of the ancient Peruvians, was doubtless superior to that of their oppressors, and the Chané women surely had considerable influence on their masters. Since the two population elements lived together for three and a half centuries, we must suppose that they would have mixed extensively.

C 142 175 Unfortunately, the ancient documents say very little about the physical qualities of the Chiriguano. The only brief note on this subject that I know of is found in the "Descripción y población de las Indias" by Bishop Lizarraga (44): "They are
C [302] comely, robust, with broad-shouldered, high chests, well built, dark. They pluck their eyebrows and eyelashes; the eyes are small and lively." According to Father Alejandro
Ce 144 175 Corrado in the year 1883, that is, a short time after the Chiriguano lost their independence because of the whites and the Chané began to become emancipated from their oppressors, forming their own towns, somatic differences between the

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44. Moreno II, p. 101.

/12 cont./

C Ce 144 [177] Chiriguano and Chané no longer exist. "The physiognomy of the latter was completely identical to that of the former" (45).

45. Moreno II, p. 254.

C 114 141 C [113] In addition to anthropological measurements made on four Chiriguano by Ten Kate (46), Robert Lehmann-Nitsche

46. Ten Kate. Herm.: "Matériaux pour servir à l'antropologie des indiens de la République Argentine /Materials for use for the anthropology of the Indians of the Argentine Republic/." Revista del Museo de la Plata. Vol. 12. La Plata. 1904.

in 1906 had the opportunity at the San Pedro de Jujui sugar mill to take the anthropological measurements of 40 Chiriguano men and ten women, who had come from Bolivia to work at that mill. Entitled "Estudios antropológicos sobre los Chiriguanos, /Pl. III-IV appear here/ /13/ Chorotes, Matacos, y Tobas (Chaco Occidental)" (47), Lehmann-Nitsche has

C [113] 47. Anales del Museo de La Plata, Vol. I, No. 2, (Second Series). Buenos Aires, 1908.

published the results of these measurements, together with measurements of other Indians, and added to that publication in the first 12 plates Chiriguano types photographed by Carlos Bruch. In addition to the somatic measurements, determination of skin color, eye color, and hair color and form have C 166 been published by Lehmann-Nitsche. Thirty-six of the 40 Chiriguano men stated where they had lived, and from this we know that these people had come from various regions of C [167] Chiriguano territory to the San Pedro sugar mill. There were some who had come from the northern regions, and one had come from the city of Santa Cruz de la Sierra. Others had come from the south of Chiriguano territory, for example, from the town of Carapati, located considerably to the south of the Pilcomayo River. There are named 13 Chiriguano

[Text continues on p. 30]

Plate III

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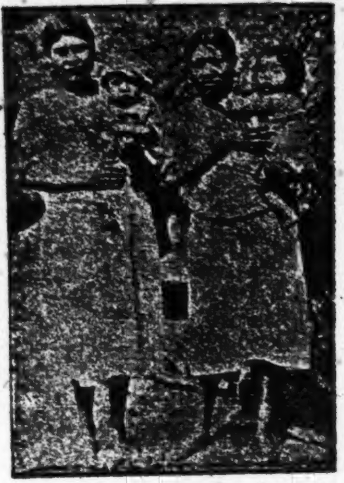

Fig. 5
(I.C. 360)--Chiriguano women
with babies in Machareti

Fig. 6
(I.C. 335)--Chiriguano men
in Machareti

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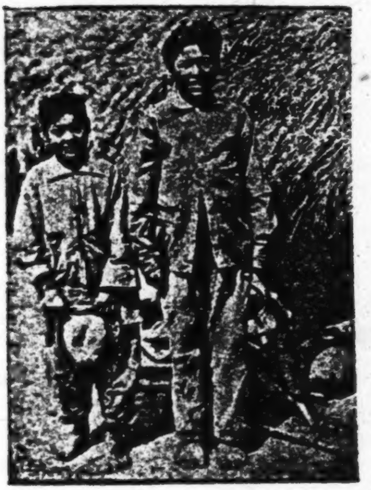

Fig. 7
(I.C. 361)--Chiriguano boys
in Machareti

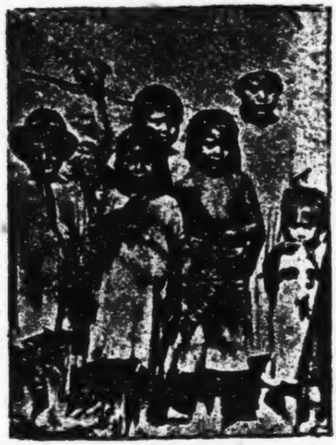

Fig. 8
(I.C. 362)--Chiriguano
children in Machareti

Chane SF8
Izozo

Plate IV

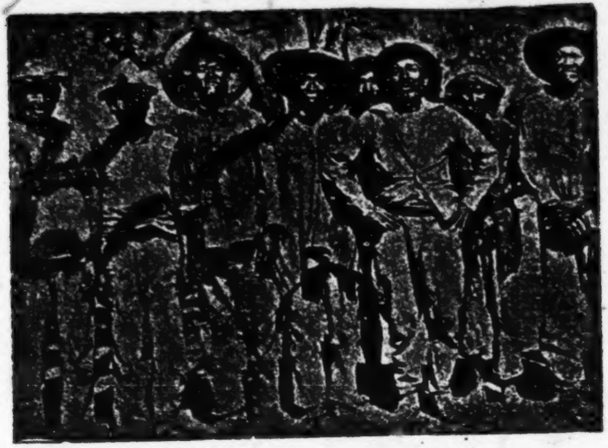

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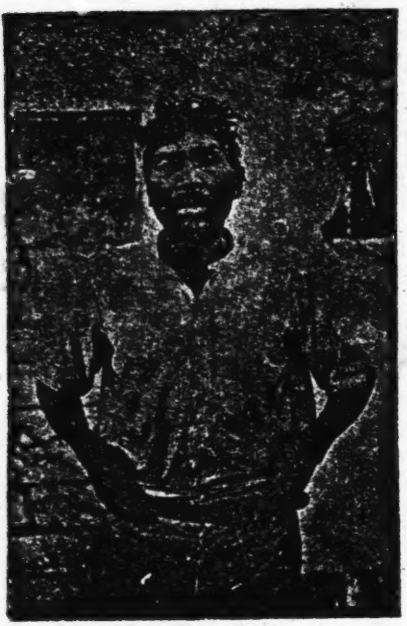
Fig. 9

(I.C. 30) -- Izozó men, near Toledo



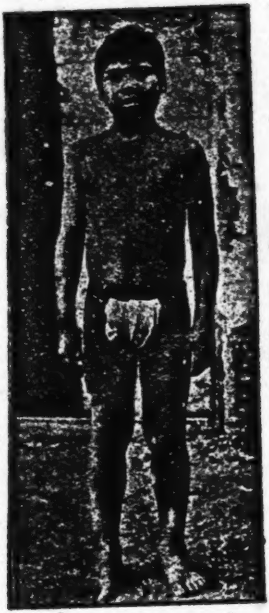


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Fig. 10

(I.C. 243) -- Cacique of the Izozó, in Toledo

Fig. 11

(I.C. 244) -- Izozó boy in Toledo

/13 cont./

166 towns from which one man had come from each one. From Charagua, Parapití, and Carapati two had come from each one, four from Ingre, five from Santa Rosa, and eight from Machareti. Unfortunately, the native soil of the Chiriguano women was not stated, and it is only said that they came from Bolivia.

141 The average height of the Chiriguano men measured by Lehmann-Nitsche is 163.4 cm., and the height of the Chiriguano women measured is 151.7 cm. This average height of the women measured is not a little less. The average height of the eight men from Machareti was only 161.8 cm., and that of the two men from Parapití only 158.1 cm. But the average height of the four men from Ingre was 169.15 cm. The tallest of the Chiriguano men measured, who had a height of 178.6 cm., had come from Ingre, and the shortest, with a height of 153.5 cm., from Machareti. The smallest woman (between 35 and 40 years old) was only 143.0 cm., and the tallest, 158.0 cm. These numbers show us that the height of different Chiriguano individuals is quite variable. Among the Chiriguano measured by Lehmann-Nitsche, the number of those who came from the same region is too small to be able to make exact deductions about the differences in height of the Chiriguano of the various regions in order to be able to clearly demonstrate the somatic influence of mixture with other tribes.

14 The photographs of Chiriguano types published by Lehmann-Nitsche show great variations among the different features and bodies, which corresponds to the fact that the present-day Chiriguano are the product of a mixture of various ethnic elements.

113 Good photographs of the Chiriguano of the southern part
114 of their territory can be found in the publication of von Rosen,
142 Ethnographical Research Work during the Swedish Chaco-
Cordillera Expedition, 1901-1902 (48). Erland von Nordenskiöld

48. Stockholm. 1924.

113 /13 cont./
114 has published Chiriguano and Chané types (49).
142

The Territory of the Chiriguano

C
131 Concerning the location and extent of the territory of
the Chiriguano at the time of their independence, that is,
from the beginning of the 16th century to the second half of
the 19th century, we have Moreno's detailed studies in two
places in his work already cited many times above, the titles
C of which are: "Las tierras de los Chiriguanos /The lands of
[101] the Chiriguano/" (50). According to Moreno (51), the
Chiriguano--Chiriguano /14/ of the Cordillera in contrast to
the Itatines-Guarayus and the Piritaguaris also often called
Chiriguano in the literature -- from the time of the Conquest
until they lost their independence inhabited the same territory,
that is, the western spurs of the Andes from south of the
Pilcomayo up to the lands which extend on both sides of the
Ce Guapay. The Chané, who formerly had a large well-populated
13 territory, "although they formed several partial migrations,
[648] remained in great number subject to the conquering Guaraní
within the region which these latter had converted into their
impregnable abode" (52). In 1883 Father Alejandro Corrado

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49. Erland Nordenskiöld: Forskningar och äventyr i Sydamericā /Inquiry and Adventure in South America/. Stockholm, 1915. Ills. 14-16; 20 and 31. Nord. I. Figs. 75, 76, 79, 87, 106, 110, 111, 112, 116, 132, and Pl. 18-2 /the second figure of this number in the twenties is illegible/.

50. Moreno II, pp. 79-126 and pp. 235-254.

51. Moreno II, p. 236.

52. Moreno II, p. 249.

/14 cont./

Ce 131 still writes that the Chané were found scattered among the Chiriguano located among the last spurs of the Andes (53).

53. Moreno II, p. 254.

C 131 [114] Even after losing their independence, the Chiriguano inhabited more or less the same territory. Having known personally only Machareti out of the territory of the Chiriguano, I here refer to the data of Erland Nordenskiöld, who came to know them in the years 1908, 1909, and 1913 and personally traveled through most of this territory, spending up to four to five months altogether in the study of the Chiriguano and the Chané (54).

54. Nord. 2, p. XII.

According to Nordenskiöld (55), the territory of the

55. Nord. 2, pp. XIV and XV. Cf. Métraux I, pp. 332 and 333.

C Ce 131 Chiriguano extends from the region near Santa Cruz de la Sierra in the north to near the Bermejo River in the south. Now the Rio Grande can almost be taken as the northern limit of their territory. This is the land located between the boundary of the Andes and the great plain of the Chaco, in the valleys of which the Chiriguano, and in part the Chané live. It can be said that this territory is inhabited wherever there is the necessary water, although it may be no more than enough for and their domestic animals to drink. The Chiriguano inhabit that territory contiguously, while the Chané today live in territories separated from one another. Thus some of them are on the Itiyuro River in Argentina, some are in Caipipendi, some on the lower Parapití River, and others near Itaú, south of the Pilcomayo River. C 131 [167] Outside of the territory of the Chiriguano which has thus been circumscribed, a few Chiriguano now live in the Santa Rosa Valley north of Santa Cruz de la Sierra, and a few fled to the Chaco after the last broken revolt in 1890, without our having any information on their stopping place.

/14 cont./
131 without our having any information on their stopping place.
[563] Some Chorote live in the territory of the Chiriguano, near
Yacuiba, and also, without counting the missions, the whole
[797] territory has been penetrated by whites and mestizos.

131 According to these data given by Nordenskiöld, the
174 territory of the Chiriguano, after their definitive subjection
by the whites and up to the present time, has remained the
same as that which they had at the time of their independence,
except, it would seem, that they have come down more into
the valleys and do not now live, as was stated in the 16th
century documents, on top of the inaccessible mountains,
which, as natural fortresses, offered them a secure refuge during their expeditions.

Towns and Houses

361 The arrangement of the towns and the form of the houses
177 of the Chiriguano are not at the present time the primordial
ones, and they have probably passed through two different transformations, one after the other, first under the influence of the
architecture of Inca culture and later the architecture of the
whites. /15/ According to the Annua de la Compañia de Jesús
Tucumán and Peru, of the year 1596, the Chiriguano towns were
composed of only a few houses that were large enough to house
361 as many as 100 persons. In his "Descripción breve de toda la
342 tierra del Perú, Tucuman, Rio de la Plata y Chile /A Brief
62 Description of all the Land of Peru, Tucumán, Río de la Plata,
[113] and Chile/," Father Lizarraga (56) describes the Chiriguano
towns in the following way: "The largest of the towns is one of five houses: the common number is three; but they are very long, more than 150 paces, with a two-sloped roof with posts in the middle, upon which the framework is constructed, and one kin group /parentela/ lives between one post and the next one."

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56. Madrid, 1909. Nueva Biblioteca de Autores Españoles, Vol. 15. Cited in Nordenskiöld.

/15 cont./

550 342 next one." Garcilaso de la Vega (57) describes the large houses of the Chiriguano in the same way: they build a very large dormitory, and inside as many alcoves as there are residents, and so small that there is no room for anything but persons. 361 342 171 112 Through detailed descriptions and sketches, we are familiar with the construction of the towns of the ancient Guaraní of the Tupinambas on the eastern coast of Brazil (58). Four or five long, rectangular houses were built a short distance from one another around a quadrangular or pentagonal plaza, and the whole town was fortified by a defensive wall. 361 712 We also know that the ancient towns of the Chiriguano had such defensive constructions through information from the year 1618, when Ruiz Diaz de Guzman found such a fortification of a Chiriguano town near the Pilcomayo River, which consisted of "two concentric walls of stone and of wood" (59). 361 342 171 According to Serrano (60), the Guaraní towns of the ancient Province of Uruguay consisted of only four to eight large rectangular houses.

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57. Vol. II, p. 281. According to Métraux I, p. 331.

[113] 58. According to De Bry. Métraux, A.: La civilisation matérielle des tribus Tupi-Guarani /The Material Culture of the Tupi-Guarani Tribes/. Paris, 1928.

59. Moreno II, p. 252.

[113] 60. Antonio Serrano: Etnografía de la antigua provincia del Uruguay /Etnography of the Ancient Province of Uruguay/, Paraná, 1936, p. 125 /the second number of this figure is questionable, being barely discernible in the original text/.

/15 cont./

342 "In 1627 the Jesuits found near Yapeyú a Guaraní aldea with
171 four houses in which some 100 Indians lived. They found
identical dwellings in San Ignacio and nearby regions. These
houses were quadrangular and extremely long, often in excess
of 50 meters."

361 Even during the time of their independence the Chiriguano
177 had departed from the primordial construction of their towns,
178 which had served in the first place for defense, since at the end
of the 18th century Viedma describes their houses as "a few
small ranchos made of cane" (61).

[113] 61. Viedma, Francisco de: Descripción de la provincia de Santa Cruz de la Sierra /Description of the Province of Santa Cruz de la Sierra/, Colección Angelis, Vol. 3, Buenos Aires, 1836, written 1793, p. 181. Cited by Nordenskiöld.

000 Photographs of Chiriguano Towns (ténta) and Houses (o)

I.C. 353. Chiriguano town, Machareti (Fig. 1).
I.C. 355. Scene in the town of Machareti (Fig. 17).
I.C. 356. Chiriguano in front of their house in Machareti (Fig. 14).
I.C. 357. Chiriguano storehouse in Machareti (Fig. 16).
I.C. 358. Chiriguano boys in front of their rancho in Machareti (Fig. 15).

361 The Chiriguano town of Machareti was built in its present
[797] form by Franciscan missionaries, with wide, parallel, and
[363] right-angled streets, following the common form of old Spanish
[177] colonies, since their construction is not a product of the
indigenous Chiriguano culture. But in parts, the houses and
[343] primarily the maize storehouses built on posts, correspond
to the houses of other Chiriguano towns, on which we have
information from Erland Nordenskiöld and Eric v. Rosen (62).

62. Nord. 1, pp. 173, 176. Nord. 2, pp. 1-3. Eric v. Rosen, op. cit., pp. 191 and 192, Figs. 188-192.

/16/

361 621 162 The town Ibitibi in the southern part of Chiriguano territory, south of the Pilcomayo River, examined minutely by Eric v. Rosen, was inhabited, according to the Indians, by about 300 persons. The town was located on a plain surrounded by mountains and forests. The houses formed a large circumference, the cacique's house being in the middle. Some shade trees had been planted in the open plaza between the cacique's house and the other houses. In other Chiriguano towns visited by v. Rosen, houses were dispersed without any order. According to the observations of v. Nordenskiöld too, Chiriguano towns are sometimes quite large and inhabited by around 100 persons. Often several towns are near one another. The houses are generally around a plaza sometimes planted with trees and serving as a place to play and to hold meetings.

342 We know the form of the Chiriguano houses in detail through v. Rosen (63), and primarily through the good photographs of such houses. [335] The houses are rectangular and their roofs end in points. Walls and roofs are held up by posts. The walls consist either of only vertical poles made from branches or reeds, close together and tied by horizontal ligatures, or of interwoven poles whose interstices are plastered with mud. The roof (opitiá) is covered with straw. One type of house was illustrated in a photograph by v. Rosen (64), on which one side of the roof projects at the top over the other side of the roof. [171] The same house type also exists in the ancient culture of the Peruviams, as is shown by sketches found on the surface of ancient Peruvian vessels.

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63. Eric v. Rosen, op. cit., p. 191; Figs. 188-192 and 217.

64. Eric v. Rosen, op. cit., Fig. 190.

/16 cont./

342 A special feature of Chiriguano houses and where they differ from those of the common ranchos of white residents is that the two oblique sides of the roof descend almost to the ground, passing far beyond the wall. Machareti houses also show this special feature. (Cf. Fig. 14 /see p.40/.) The result of this roof construction is that the entrance (ŏkye) is on [285] [232] [177] the gable side. To shut the entrance they use reed mats or cowhides (65). Widely influenced by the whites, the Chiriguano and the Chané continually vary the style of their houses, and, according to Nordenskiöld (66), today many of them are already building houses identical with those of the whites.

343 In addition to the houses used for dwellings, the Chiriguano and some of the Chané have houses built on posts for storehouses (avatió). Also in Machareti such houses were commonly found beside the dwellings. Figure 16 /see p. 41 / shows such a [417] storehouse. A ladder, which consists of a post provided with notches, leads to the platform (on the right in the figure). These storehouses serve primarily as places to keep the maize crop and other produce. The space under the platform serves for storing various other things. Nordenskiöld saw such houses built on posts, whose upper part served in general for storage, while the lower part was utilized as a dwelling (67). Often those storehouses are near the plantings far from the dwellings (68).

[335] As shown in Figure 16, the frame for these storehouses consists of ten vertical posts of different lengths, bifurcated at their upper ends to support the horizontal posts that form the base for

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65. Métraux 1, p. 469.

66. Nord. 1, p. 173.

67. Nord. 1, p. 175; Nord. 2, p. 3.

68. Nord. 1, p. 173.

/16 cont./
343 the roof and the /Plates V-VII appear here/ /17/ platform.
335 The middle pair of the vertical posts is the longest pair and
serves to hold up the ridgepole. Of the other eight vertical
posts, always in two, one longer and one shorter, have been
placed immediately next to each other all along the two
sides of the middle pair of posts and at a certain distance from
it. Of the horizontal posts, each one of which is held up by
each one of the five pairs of vertical posts, those which are
placed on the higher pair and on the two pairs of middle size
of the vertical posts serve to hold up the roof, while the two
horizontal posts which are placed on the two smaller pairs of
vertical posts form the base for the platform of the house.
Besides the five pairs of vertical posts that form the frame
of the house, there is also added a vertical post of the height
of the platform, which serves to support the ladder leading
343 to it. The roof of these storehouses is covered with straw like
the roofs of dwellings. The walls are made of reed poles very
close together. While the poles of the storehouse illustrated
in Figure 16 are horizontal, those of other storehouses, with
which we are familiar through Nordenskiöld's photographs and
those of v. Rosen and Métraux, are vertical (69). The entrance, which must be reached by means of the ladder, is at
[417] the gable end, like that of the dwellings. The ladder consists
of a post with notches for steps (70).

[171] There must be some special reason to explain the sur-
[174] prising fact that the Chiriguano have houses built on posts,
since it could not be that they brought the custom of constructing them from their native soil, because the Guaraní have
000 never had them. Nor could it be that they adopted this from

[TEXT CONTINUES ON P. 42]

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69. Nord. 1, Figs. 83 and 84 and Pl. 18. Métraux I, Fig. 9, p. 349.

70. Cf. Fig. 16, at the right. Nord. 1, Fig. 84. v. Rosen, op. cit., Fig. 191.

Chane SF8

Plate V

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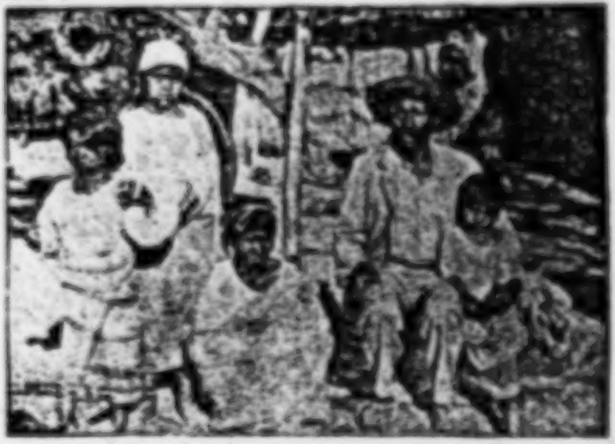

Fig. 12
(I.C. 246) -- The cacique of the Izozó, with his family, near Toledo

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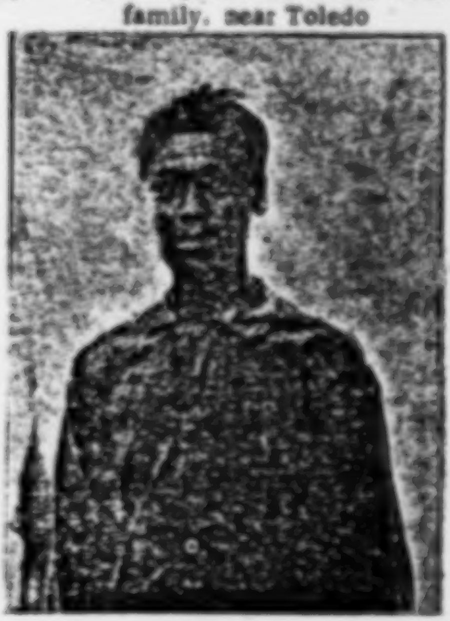

Fig. 13
(I.C. 245) -- Izozó youth, in Toledo

Plate VI

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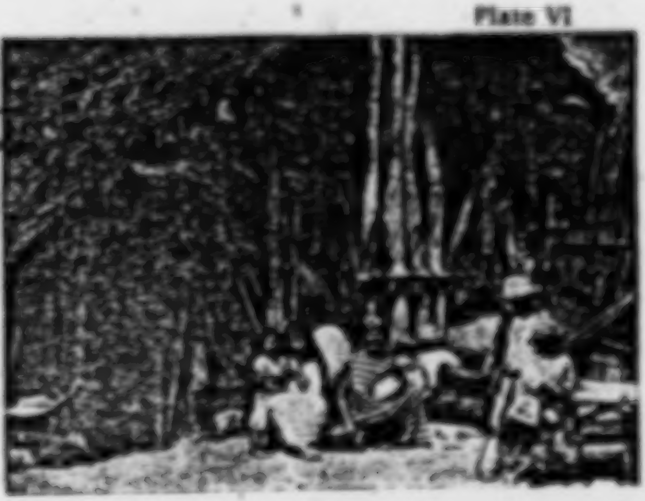

Fig. 14

(I.C. 356) -- Chiriguaño women and children in front of their house in Machareti

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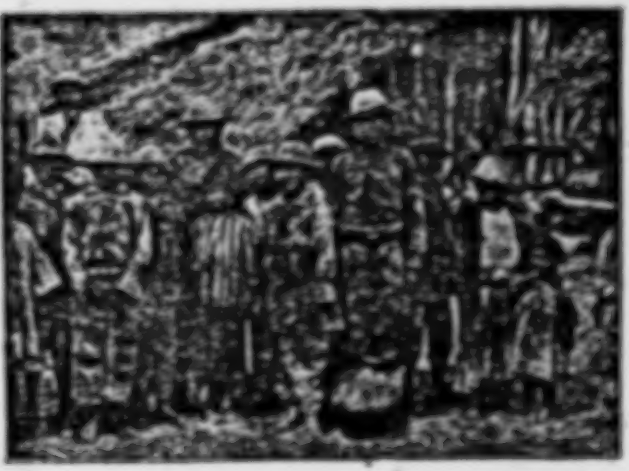

Fig. 15

(I.C. 356) -- Chiriguaño in the town of Machareti

Plate VII

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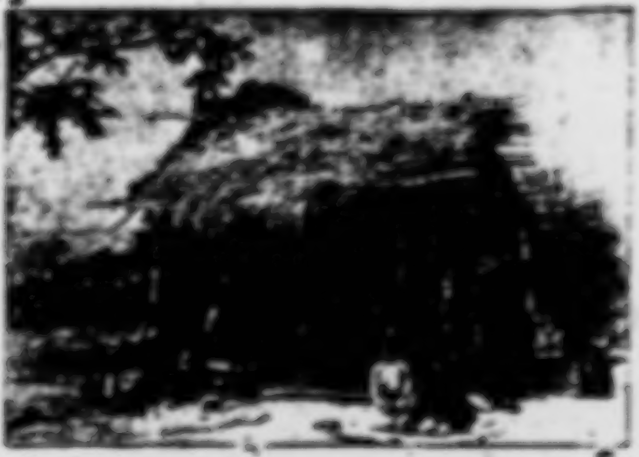

Fig. 16
(I.C. 387) -- Chiriguano storehouse built on posts in Machareti

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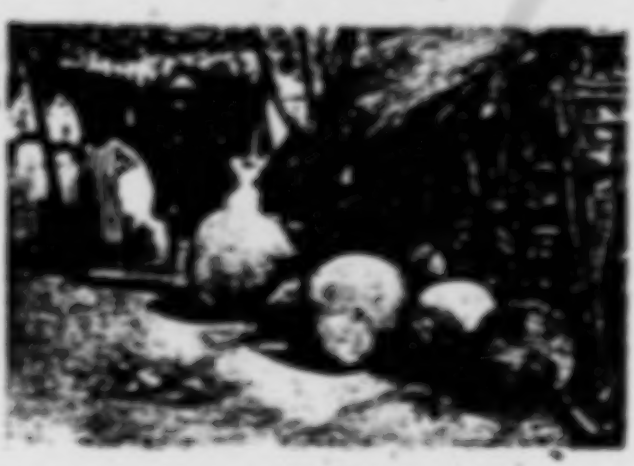

Fig. 17
(I.C. 350) -- Scene in the Chiriguano town of Machareti. Boy dressed in a poncho. Large baked clay vessels and a mortar.

343 [177] [176] /17 cont./ Nor could it be that they adopted this from the whites, because in those regions they have never used houses built on posts. Neither do we have any indications that the ancient Peruvians had such houses. It is very unlikely that the Chiriguano settled in their new territory might have invented the construction of such houses, because the nature of their territory did not render such a form of construction necessary. 343 171 In South America we find houses built on posts almost solely in regions exposed to floods. Thus we mainly find them in the coastal regions of the northern part of the South American continent, and they appear to the south of the Amazon River only in a relatively narrow zone in the center of the continent including Chiriguano territory. According to Marban in 1676 (71), the Mojo had houses built on posts and

[113] 71. Marban, Pedro: "Relación de la Provincia de la Virgen del Pilar de Mojos /Report on the Province of the Virgen del Pilar de Mojos/." Boletin de la Sociedad Geografica de La Paz, Bolivia, 1898, p. 132. According to Nordenskiöld.

doubtless such house constructions were quite useful in those marshy and often flooded regions. In addition Nordenskiöld during his travels (72) found one of these houses serving as a

72. Nord. 2, p. 3.

storehouse among the Chacobo, who live north of the Mojo not very far away. Some of the Quichua /Quechua/ houses located between the Chaparé River and the Cochabamba River had been built on posts, but Nordenskiöld himself does not consider this architecture to have been primordial among them. Of the Chaco tribes who have storehouses built on posts Nordenskiöld mentions the Matako /Mataco/. I found such storehouses in the Matako town near Linares, but many of them also in the Churupí installations in Esteros. Nordenskiöld in his publications on the Churupí, whom he calls the Ashluslay, does not

C /17 cont./
343 mention the existence of such storehouses among these Indians,
171 and thus we must suppose that the Churupí adopted this style
of house construction only recently and probably from the
C Matako, with whom they have many contacts. /18/ To com-
343 plete the data on the spread of houses built on posts, I shall
171 also mention my observations on my expeditions of 1901 and
~~Go~~ 1910 to the Guató (73). Inside many houses, under the roof
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[352]
[114]
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Go
[113] and using long horizontal poles, these Indians build a platform
Go which serves for storing various things. In this special arrange-
[182] ment of the Guató in building their houses, we find the rudiment
of the true houses built on posts, and this is motivated by the
great floods to which they were exposed even when they had
been built in places higher than the marshy lands.

C We should not consider houses built on posts as a product
343 of the primordial culture of the Chaco tribes. It leaves as
174 the only center of its propogation the zone in the interior
of the South American continent which we have mentioned, the
center of the ancient culture of the Aruaco /Arawak/ of these
Ce regions, the territory of the Mojo. The Chané, who were later
343 subjugated by the Chiriguano and incorporated into their com-
174 munity, also belonged to this Aruaco culture. We must thus
171 surmise that houses built on posts, like those we still find today
among the Chiriguano and some of the Chané, first originated in
the Chané culture and later passed to the Chiriguano when
the cultures of these two tribes were fused into a single one.

C No doubt the special construction of these storehouses has
Ce
343 a different purpose today among the Chiriguano and the Chané
[182] than it had in the beginning. According to Nordenskiöld, the
Chané of the lower Parapití River, which is a typically
marshy region, do not have such houses, while they are
common among the Chiriguano and also among the former
000 who live on solid ground not exposed to floods. Their purpose

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73. Max Schmidt: Indianerstudien in Zentralbrasilien /Indian Studies in Central Brazil/, Berlin, 1904, p. 178.

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/18 cont./ Their purpose today among the Chiriguano and Chané, as well as among the Matako and Churupí, is primarily to protect certain provisions against the numerous dogs and other domestic animals who are around in great number in every part of the town (74).

74. Concerning the question of the purpose of houses built upon posts with respect to damage by animals, cf. v. Rosen, op. cit., pp. 192-198.

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Food and Drink. Manner of Eating and Drinking.

Hunting and fishing are not very important in the economy of the Chiriguano and Chané. Their territory has relatively few edible animals, and they are not very brave hunters (75).

75. Nord. 2, p. XVI.

C
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Of animals that can be hunted, they eat the puma and the jaguar, while they scorn vultures, foxes, and the meat of monkeys, so craved by other Indians (76). One contribution to their subsistence which is worth mentioning is that from fishing, but only for the Chiriguano and Chané who live near the upper Pilcomayo River, since that river has excellent fishing. These Indians cannot make much use of fishing in the Rio Grande, because today this river can be held to be almost the frontier of their territory. The Parapití River has many fish, but they are very small. While the Chané today live in territories where for several months some fish are available, many Chiriguano towns are so far from the larger streams that fish does not enter into the diet of their inhabitants (77). With

76. Nord. 1, p. 190.

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77. Nord. 2, pp. XV and XVI.

231 /18 cont./ With
262 respect to the eating of meat, the Chiriguano depend on their livestock, which, however, according to Nordenskiöld, since they omit the raising of pigs and chickens, is not so numerous as the livestock of the Chorote and the Churupí. They do not
262 eat the flesh of asses, horses, /19/ and dogs (78). Although
241

78. Nord. 1, p. 190.

we do not have exact data on the amount of meat that their livestock yields, we can suppose that it is not very great, and thus these Indians depend principally on vegetable foods, that is, on the products of their agriculture. We should say that, in comparison with maize, all other foodstuffs have almost no importance, except among the Indians of the Parapití, among whom the sweet potato is the most important food (79).

79. Nord. 1, p. 181.

261
273 In times of shortage they eat various wild plants, principally the sweet pods of the algarroba (November-December), which, coarsely chopped up with water, they allow to ferment in order to produce a kind of chicha which has inebriating qualities (80).

80. Nord. 1, p. 236. Métraux I, pp. 361 and 362.

262
252 Since meals consist principally of maize, they are very monotonous, although the maize is eaten by them in many different forms, either boiled or parched, or as a flour cooked in steam, as a fried maize-cake, in embers /rescoldo/, or as a soft maize-pudding (81). Meat is eaten roasted or boiled,

81. Nord. 1, pp. 188 and 189. Métraux I, pp. 356-358.

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439 together with maize. Cooking salt is used at meals. While previously salt (dyũki) was obtained from mines or extracted from earth from salt licks /barreros/, today it is obtained

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/19 cont./
from the whites (82).

82. Nord. 1, p. 189. Métraux I, pp. 359 and 360.

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[312]

Among beverages, besides water, which is scarce in certain regions, chícha (ka'ui) made of maize, potatoes, or algarrobo deserves mention (83). Chicha made from yellow

83. Nord. 1, pp. 234 and 236. Métraux I, pp. 364 and 365.

Ce
[273]

or white maize is preferred. The chicha from potatoes by the Chané of the Parapití River is considered inferior.

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415

The Chiriguano and Chané ordinarily do not eat from a common pot, but separately and from dishes. Because of this their houses contain many dishes, which are normally made of baked clay (nyá'e), but may also be of wood (sua) (84).

84. Cf. Nord. 1, p. 190.

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[126]

I collected various baked clay dishes among the Chiriguano and Chané (cf. Figs. 78-80 /see p.143/), as well as two wooden dishes, two examples of which the Museum already had, donated by Doña María F. de Casati. I shall deal with the baked clay dishes, along with the other baked clay vessels, in the chapter on pottery, and therefore enumerate here only the wooden plates in the collection.

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Wooden Dishes (sua) of the Chiriguano

I. A..351.	(Gift of Doña María F. de Casati.)	Diam. 21 cm.	Ht. 6 cm.		
I. A. 352.	(")	" 15.5 cm.	" 3.5 cm.		
I. A. 496.	(Max Schmidt trip.)	Diam. 23 cm.	Ht. 6 cm.	(Fig. 18).	
I. A. 497.	(" " ")	" 30 cm.	"6.5 cm.	(Fig. 18a).	

/19 cont./

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As Figure 18, a and b, shows, these wooden dishes have two handles on the rim.

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[177]
[439]

As an eating utensil the Chiriguano and Chané today use metal spoons which are acquired from the whites. But they also use wooden spoons (85).

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85. Nord. 2, p. 56. Nordenskiöld, Erland: Vergleichende ethnographische Forschungen I. Eine Geographische und ethnographische Analyse der materiellen Kultur zweier Indianerstämme in el Gran Chaco /Comparative Ethnographic Investigation I. A Geographic and Ethnographic Analysis of the Material Culture of Two Indian Tribes in the Gran Chaco/, Göteborg, 1918, p. 93. (Cited in what follows: Nord. 3.) Métraux I, pp. 364, [illegible]-376, and Figs. 42 and 43.

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412

/20/ Wooden Spoons (kuruha) of the Chiriguano

I. A. 353. (Gift of Doña María F. de Casati.) Length 36 cm.
I. A. 498. (Max Schmidt trip.) Length 42.5 cm. (Fig. 20).
I. A. 499. (" " ") Length 16 cm. (Fig. 22).

C
[171]

As Figures 20 and 22 show, there are variations in the shape of these wooden spoons. The shape of spoon I. A. 499 is almost exactly like the Chané spoon shown in a drawing by Nordenskiöld (86), while the shape of spoon I. A. 498 is very similar to the spoons found in the ancient burials of the Peruvian highland, their front part and handle forming a rather straight line.

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86. Nord. 3, p. 93. Fig. 24 F.

/20 cont./

C Ce 412 17 Although it may be that the shape of the wooden spoons of the Chiriguano and of the Chané may have been influenced in many cases by the shape of the metal spoons acquired from the whites, we must nonetheless regard it as a product of the indigenous culture of South America that in pre-Columbian times had been rather widespread generally among the Andean cultures. Its appearance is quite limited among the native tribes of South America, setting aside the cases where it has been imported by the whites. But it is quite common among the Indians of the regions near Chiriguano territory in particular, for example, among the Tapieté and many other Chaco tribes, such as the Toba, Matako, Churupí, and especially also among the Mojo and, farther to the east, among the Guató. It must be supposed that the Chiriguano received this cultural possession directly or indirectly from the culture of the Andean montaña.

Ce 237 415

Shells (ínta) as Eating Utensils

I. A. 734 and 735. (Izozó.) Length 12 cm. and 10 cm.

Outside of the spoons mentioned, the Chané-Izozó also use shells as eating utensils.

Ce 415 [824] As vessels for drinking water and chicha, they above all use cuyas /vessels made from gourds/ (cf. Figures 24-26 and 149; 150; 153) and calabashes (cf. Figures 42 and 151). For the chicha festivities this beverage is ordinarily taken out of the painted baked clay pots in cuyas with designs on them, which are passed around among those present. C 415 126 531 Of the cuyas that I acquired from the Chiriguano in Machareti many have either incised or pyrographed designs, with which I shall deal in the chapter on art. The cuyas received from the Izozó do not Ce 415 [531] [824] have designs on them, which is easily explained by the peculiar circumstance that the Izozó were at that time living near Toledo. Three of the calabashes received from the Izozó (cf. Figure 42 c) were made from the fruit of the

Ce /20 cont./

415 [824] [439] Crescentia Cuyete /Crescentia cujete/ tree, which does not grow in their territory. The cacique of the Izozó told me that these fruits had been brought from Santa Cruz de la Sierra.

C Ce 415 In addition to these cuyas, the Chiriguano and Izozó also use for drinking chicha small baked clay chicha vessels with handles in the form of European cups. /Plates VIII-IX appear here./

C 415 /21/ Cuyas (ia) in the Collection

126 531

I. A. 451.	Chiriguano	Length 14 cm.	Incised designs.	(Fig. 26e.)
I. A. 452.	"	" 10 cm.	" "	(Fig. 26a.)
I. A. 453.	"	" 10 cm.	" "	
I. A. 454.	"	" 5.7 cm.	" "	(Fig. 26c.)
I. A. 455.	"	" 12.5 cm.	Designs incised and pyrographed.	
I. A. 456.	"	" 11.5 cm.	" "	(Fig. 26b.)
I. A. 457.	"	" 23 cm.	" "	(Fig. 24.)
I. A. 458.	"	" 15 cm.	" "	(Fig. 26d.)
I. A. 459.	"	" 13.5 cm.	No designs, red paint outside.	
I. A. 460.	"	" 20 cm.	Incised and pyrographed designs.	(Fig. 25b.)
Ce [415] I. A. 461-463; 490; 537-539.	Chiriguano.		No designs.	
I. A. 666	Izozó	Length 19.5 cm.	No designs, with handle.	(Fig. 25a.)
I. A. 667-670.	"		No designs.	

The length of these cuyas is quite variable. The largest of them measures 23 cm. in length and the smallest only 5.5 cm.

Calabashes (iá, ua) in the Collection

I. A. 464-467.	Chiriguano	With pyrographed designs. (I. A. 466: Fig. 151.)
I. A. 458.	"	No designs; with a maize cob for stopper.
I. A. 469.	"	No designs; entwined all around.
Ce 415 I. A. 661 and 662.	Izozó	No designs. (Fig. 42 a and b.)
126 [531] I. A. 663-665.	"	No designs; made from the fruit of the Crescentia Cuyete tree. (I. A. 665: Fig. 42.)

Plate VIII

415

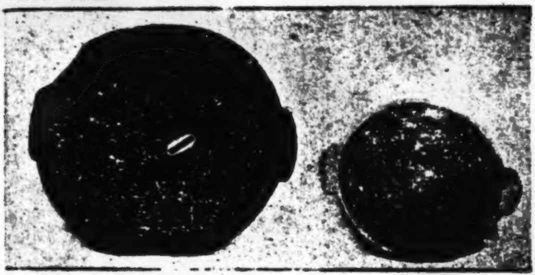

Fig. 18

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415 ←

Fig. 19

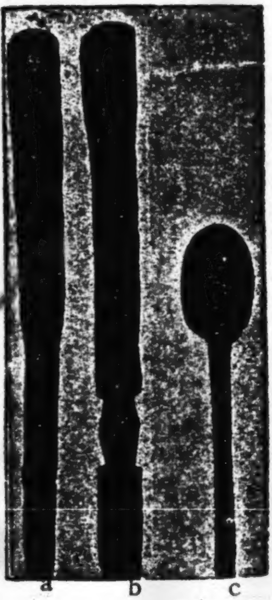

Fig. 20

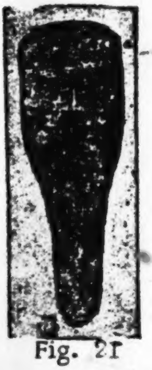

Fig. 21

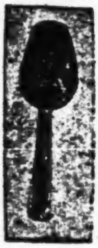

Fig. 22

276

Fig. 23

/The captions are on p. 52./

Chane SF8
Izozo

Plate IX

C
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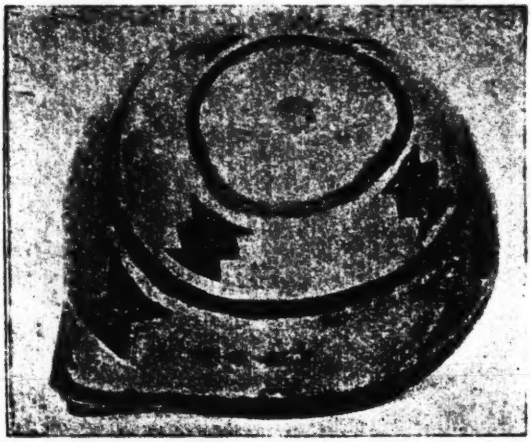

Fig. 24

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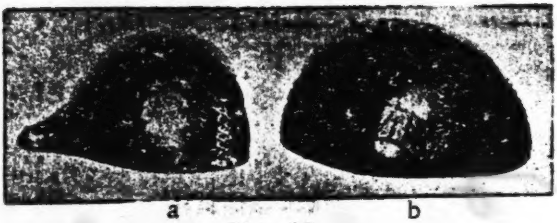

a b

Fig. 25

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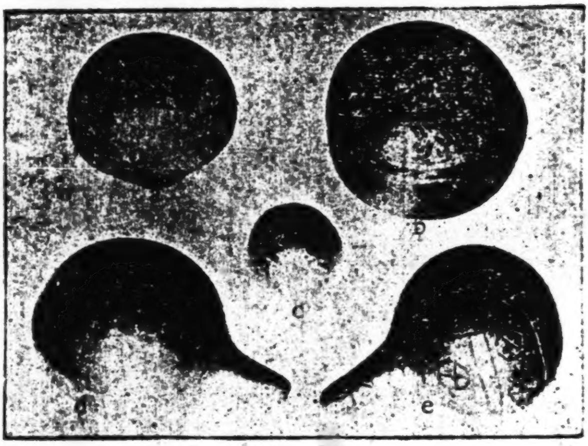

Fig. 26

/The captions are on p. 52./

/Captions for Plates VIII and IX./

C
415
Plate VIII

Fig. 18. a (I. A. 497): wooden dish (Chiriguano), diam. 30 cm.
b (I. A. 496): wooden dish (Chiriguano), diam 23 cm.

Fig. 19. (I. A. 574.) Wooden platter (Chiriguano), length 83 cm.

C
412 Fig. 20. a (I. A. 578), b (I. A. 576): wooden spatulas for stirring foods and drinks (Chiriguano), length 66.5 cm. and 114 cm.
c (I. A. 498): wooden spoon (Chiriguano), length 42.5 cm.

Fig. 21. (I. A. 502.) Spatula for stirring foods and drinks (Chiriguano), length 24.5 cm.

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Fig. 22. (I. A. 499.) Wooden spoon (Chiriguano), length 16 cm.

276 Fig. 23. (I. A. 511.) Wooden pipe (Chiriguano), length 10.5 cm.

Plate IX

C
415 Fig. 24. (I. A. 457.) Decorated cuya (Chiriguano), length 23 cm.

Ce
[415] Fig. 25. a (I. A. 666): cuya with sewing (Izozó), length 19.5 cm.
b (I. A. 460): decorated cuya (Chiriguano), length 20 cm.

Fig. 26. Decorated cuyas (Chiriguano): a (I. A. 452), length 10 cm.; b (I. A. 456), length 11.5 cm.; c (I. A. 454), length 5.7 cm.; d (I. A. 458), length 15 cm.; e (I. A. 451), length 14 cm.

C Ce 415 /21 cont./

The largest of these calabashes measures 50 cm. and the smallest 7.5 cm.

Stimulants

Ce 276 The Izozó whom I found in Toledo were not smokers. They attached no importance to the tobacco and pipes that I offered them. C 276 [126] I acquired from the Chiriguano a simple wooden pipe, straight in shape, of the kind commonly used among the tribes of the Chaco, but I have seen no other pipes among them; neither have I seen them smoking.

C [126] Pipe (cachimbo) in the Collection

I. A. 740. Chiriguano. Length 10.5 cm. (Fig. 23.)

C Ce 249 276 According to Nordenskiöld, the Chiriguano and the Chané plant tobacco, but its planting is not significant and they are not great smokers. If they smoke, they ordinarily use cigarettes, with a wrapper made out of a maize leaf, and only rarely use pipes (87). C 276 This explains the very uncharacteristic form of the pipe that I found among the Chiriguano. A pipe of very different shape, with a special handle in front of the tobacco bowl, is represented in a drawing by Nordenskiöld (88). C [177] According to the same author, the Chiriguano who live near the Quichua have received from the latter the custom of chewing coca.

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87. Nord. I, p. 182. Cf. Métraux I, p. 339.

88. Nord. I, p. 179. Fig. 88.

Body Care and Rest

C Ce 515 The Izozó in Toledo and the Chiriguano in Machareti offer a contrast with the Indians of the Chaco whom I visited in that they are relatively clean. C Ce [312] We must recognize that this cleanliness, which has also been praised by other authors, occurs despite the fact that a great many of them live in regions with very little water and where often the quantity cannot satisfy the necessities of cleanliness except with great difficulties. According to Nordenskiöld, they bathe several times a day and often directly after eating. After meals they wash their mouths and their hands (89).

Gi 352 513 For sleeping, the ancient Guaraní commonly used the hammock. "The sleeping hammock which they hung from two pillars in the dwelling was characteristic of the Guaraní," says Serrano of the Guaraní of the ancient Province of Uruguay (90). C Ce 513 352 The Chiriguano and Izozó still have hammocks today, but these are not commonly used and serve less for sleeping at night than for resting during the day (91).

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89. Nord. I, pp. 180, 19 /the third figure of this page number in the 190's is illegible/, 203, 204.

90. Antonio Serrano, op. cit., p. 120.

91. Cf. Nord. I, p. 177. Nord. 2, p. 9. Métraux I, p. 470 and Plate 88.

/22 cont./

C
352
[126]
Hammocks (Chiriguano: kía; Izozó: iní) in the Collection

I. A. 448. Chiriguano. Wool. Length 230 cm. Width 75 cm. (Fig. 102b).
I. A. 449. " " " 105 cm. " 60 cm.
I. A. 450. " " " 285 cm. " 60 cm. (Fig. 102a).
Ce [126] [352] I. A. 360. Gift of Mr. Teodoro Rojas. (Chané of the Parapití.)
From Caraguatá. Length 320 cm. (Fig. 102c).

C 352 286 The hammocks that I acquired among the Chiriguano in Machareti were all made of wool, as were the hammocks that Métraux saw among the Chiriguano (92). According to Nordenskiöld (93), Chiriguano hammocks are commonly made of cotton and only incidentally of wool. C 286 352 126 Of the three large hammocks in the collection, two (I. A. 448 and 449) were plaited with the technique very common among the Indians of South America, which in my publication on the Guarayú, which appeared in this same journal, I called "double thread plaiting" (Doppelfadengeflecht) (94), while one (I. A. 450) shows the structure of a piece of weaving. (Cf. Fig. 102a) Ce 286 352 [126] From the Chané the Museum's collection has hammock I. A. 360, which Mr. Teodoro Rojas acquired among the Indians of the Parapití River and presented to the Museum. (Fig. 102c.) This hammock was made of caraguata fibers and with a netting technique. According to Nordenskiöld, in addition to such hammocks of caraguata fiber the Chané have others made of cotton, on the technique of which we have no information. C Ce 286 352 With regard to the details of these Chiriguano and Chané hammocks, I refer to the chapters dedicated to the description of the technique of plaiting and the technique of preparing netting.

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92. Métraux I, p. 470.

93. Nord. 2, p. 12.

94. Cf. Fig. 102b /see p.174/.

/22 cont./

352 The Chiriguano generally sleeps on a kind of cot (*catre*),
513 that is, a bed frame made of cane. Such beds, which in
[251] addition to their own purpose also serve for drying maize, have
been represented in drawings by Eric v. Rosen (95), Erland
[174] v. Nordenskiöld (96), and Métraux (97). No doubt /23/ the
cold climate of the region to which the Chiriguano had emigrated made them abandon the use of the hammock for sleeping, not very practical for such a climate, and replace it with the cot, which was already common among the tribes of those
[232] regions. Lacking a cot, the Chiriguano sleep on the ground.
[824] In that case they use for a bed large mats made of cane or palm
[126] leaves, or also hides (98). I acquired from the Chiriguano one
[824] such mat plaited out of palm leaves (Fig. 95).

Chiriguano Mat (*túpa*) in the Collection

I. A. 540. Length 1.75 m. Width 1.50 m. (Fig. 95).

352 In some Chiriguano houses I also saw wooden benches
17 (*apika*), but unfortunately I could not acquire a specimen.
[126] Those benches in the form of a sled are very similar to the
kind of benches that are very common among the Indians of
Brazil (99) and those that we also know from the ancient

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95. Eric v. Rosen, *op. cit.*, p. 190.

[178] 96. Nord. 2, Fig. 2.

97. Métraux 1, Fig. 125, p. 470.

98. Nord. 1, p. 177. V. Rosen, *op. cit.*, p. 200. Métraux 1, p. 470.

[113] 99. Cariy /*sic*/ von den Steinen: *Unter den*

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[113]

/23 cont./

Naturvölkern Zentralbrasiliens /Among the Primitive Peoples of Central Brazil/, Berlin, 1894, p. 286.

Peruvians (100). Nordenskiöld and Métraux show such

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[113]

100. Max Schmidt: Kunst und Kultur von Peru /Art and Culture of Peru/, Berlin, 1929, p. 436.

Chiriguano benches in drawings (101).

101. Nord. 1, Fig. 85. Métraux 1, pp. 471 and 472 and Fig. 129.

C
Ce
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178

Painting and Deformations of the Body

As the use of clothing has increased among the Chiriguano and Chané, the custom of painting or tattooing the body has naturally lost importance and the remnants of such customs are too few to be able to say what they were in the past. Nor do we have data on this. I often saw Chiriguano and Izozó women and girls paint themselves with urucú, making colored spots on their faces. According to Nordenskiöld, men and women sometimes paint their faces, as well as their bodies, with red paint (102). Nordenskiöld also found tattooing on

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302

C
302

102. Nord. 1, p. 203.

the arms of some women and one Chiriguano man (103). The

103. Nord 1, p. 203. Nord. 2, p. 83, Fig. 27.

custom of dyeing the teeth with dark blue was found by

Chane SF8
Guarani SM4

C
/23 cont./

302 Viedma among the Chiriguano men (104), and Nordenskiöld

C [113] 104. Viedma: Descripción de la Provincia de Santa Cruz de la Sierra. Colección Angelis, Vol. 3. Buenos Aires, 1836. Written 1793. Page 181. According to Nordenskiöld.

found it among the women in the valley of Caipipendi (105).

105. Nord. 2, p. 85.

The latter used for that the leaves of a plant that they call "tajú" (tayú = lapacho).

C Ce 301 304 174 Gi 301 172 With respect to body deformations we can suppose that it was once a common custom among the Chané and Chiriguano to wear a "tembetá" in the pierced lower lip. Of the Guaraní of ancient times it has been stated that the men had this tembetá, and the custom is confirmed by prehistoric finds (106).

106. Cf. Antonio Serrano, op. cit., p. 122.

C Ce 301 174 The form, material, and dimensions of these tembetá were varied and varied regionally. What was the shape of the tembetá that the Guaraní had when at the beginning of the 16th century they emigrated to the spurs of the Cordillera? We do not know. Neither do we know whether or not the Chané had the tembetá when they were enslaved by the Chiriguano. C Ce [177] [325] We can assume that the metal tembetás of the Chiriguano and the Chané in their present form have their origin in the period after their contacts with the ancient Peruviams. /24/ since they did not know the technique of working metal and even today C 301 most of their tembetás are made by nearby mestizos or whites, who make them to their taste. According to Chomé's (107)

C [113] 107. "Lettre du père Ignace Chomé." Lettres édifiantes et curieuses. New edition, Vol. 8, Paris, 1781, p. 326. According to Nordenskiöld 2, p. 73.

C
301 /24 cont./

account, Chiriguano men wore small cylinders of tin, silver, or resin in the pierced lower lip. It can perhaps be surmised that the aforementioned silver tembetás of the Chiriguano were formerly more common among them. According to Nordenskiöld, at the time of his trip, that is, in 1908 and 1909, all the Chiriguano and Chané men of the older generation, and in a few Chiriguano villages the young men and boys, wore the tembetá. Among the Izozó whom I saw in Toledo and in "15 de Agosto" only the old men had the tembetá (cf. Fig. 27 and 28 /see p. 61 /), and among the Chiriguano in Machareti I did not see any men with them.

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Ce
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Ce 301 126 Tembetás in the Collection

I. A. 729.	Izozó.	Length of the base 2.6 cm. Height of the cylinder 0.9 cm. Diameter of the cylinder 1.5 cm. (Fig. 28b.)
I. A. 730.	"	Length of the base 2.8 cm. Height of the cylinder 1.3 cm. Diameter of the cylinder 1 cm. (Fig. 28d.)
I. A. 731.	"	Length of the base 2.5 cm. Height of the cylinder 1.3 cm. Diameter of the cylinder 0.8 cm. (Fig. 28a.)
I. A. 732.	"	Length of the base 3.2 cm. Height of the cylinder 1.4 cm. Diameter of the cylinder 1.8 cm. (Fig. 28c.)
I. A. 733.	"	Height 2 cm. Diameter 1.8 cm. (Fig. 28e.)

The form of the first four tembetás mentioned is that of a cylinder placed on a base of the same metal. On the front surface of the cylinder is placed a disk of semiprecious stone, blue or green, which in three cases exhibits a round perforation in the center, which in two cases is filled with metal. The stone disk of the tembetá I. A. 729 is broken. The tembetá I. A. 733 is of wax and has the form of an obtuse cone. The tembetás described by v. Rosen and v. Nordenskiöld are different from

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Ce 301 /24 cont./

those mentioned in that on the front surface in place of the semiprecious stone there were placed small blue or green stones, or also glass beads of the same color, placed inside a covering of wax with which the cylinder was filled. A good representation in a drawing of such a Chiriguano tembetá with glass beads has been published by v. Rosen (108).

108. v. Rosen, op. cit., p. 202.

C Ce 301 According to Nordenskiöld (109), the Chané tembetás

109. Nord. 1, p. 211. Nord. 2, pp. 71-77.

are generally smaller than those of the Chiriguano. Comparing the measurements of the tembetás I acquired among the Izozó with the measurements given by v. Rosen, this statement is justified with respect to the length of the base of the tembetás and with respect to the diameter of the cylinder. Certainly also these differences between the larger tembetá of the Izozó and the tembetá described by v. Rosen are very slight, this difference being only 3 mm. with respect to the length of the base and only 2 mm. with respect to the diameter of the cylinder. In contrast to this, the cylindrical part of three of these Izozó tembetás is rather higher than the corresponding part of the tembetá described by v. Rosen. While the height of the latter measures only 1 cm., the cylinders of the three Izozó tembetás have a height of 1.3-1.4 cm. The height of the fourth Izozó tembetá is almost like that of the aforementioned Chiriguano tembetá, being 1 mm. less than the latter. /Plates X-XI appear here./

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Plate X

Fig. 27

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Fig. 2[illegible]

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Fig. 29

/The captions are on p. 63./

Plate XI

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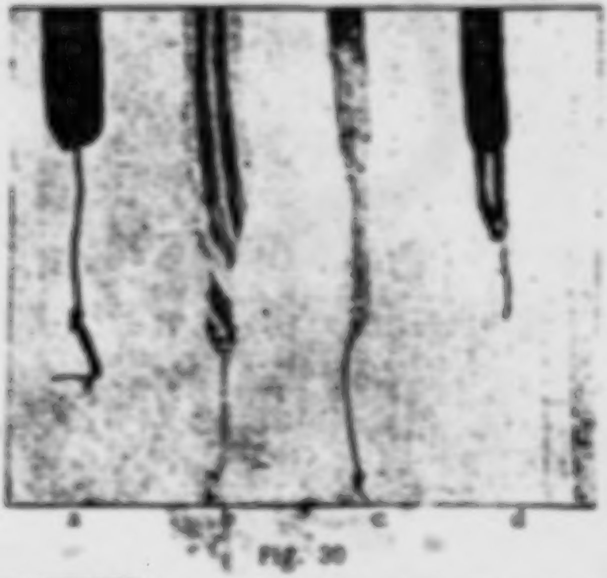

Fig. 30

Fig. 31

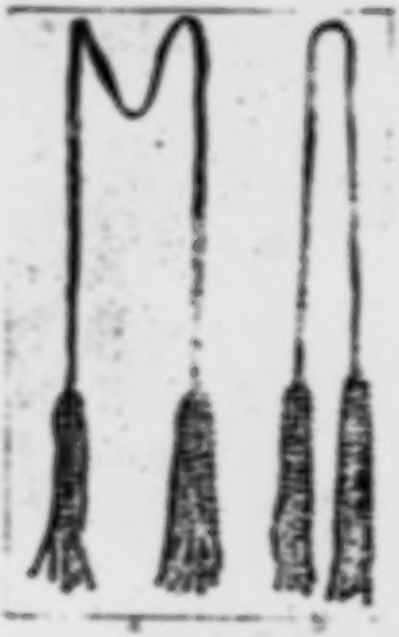

Fig. 32

/The captions are on p. 63./

St Schmidt--63 E-5 (1935) 1938 SF10 Chiriguano
Chane SF8
Izozo

/Captions for Plates X and XI/

Plate X

Fig. 27. (I. C. 249.) Izozó man with a tembetá in his lower lip.

301 Fig. 28. Tembetás of the Izozós a (I. A. 731), length 2.5 cm.; b (I. A. 729), length 2.6 cm.; c (I. A. 732), length 3.2 cm.; d (I. A. 730), length 2.8 cm.; e (I. A. 733), height 2 cm.
a-d. of tin and semiprecious stones; e. of wax.

412 Fig. 29. Combs of the Izozós a (I. A. 740), length 9.5 cm.; b (I. A. 1317), length 7.5 cm.

301 Plate XI

Fig. 30. Cotton bands for the men's hair (Izozó): a (I. A. 660), length 97.5 cm., width 3.4 cm.; b (I. A. 653), length 100 cm., width 3.3 cm.; c (I. A. 655), length 96.5 cm., width 3 cm.; d (I. A. 656), length 99 cm., width 2.3 cm.

Fig. 31. (I. A. 738.) Band of human hair for the men's hair (Izozó), length 260 cm., width 8.2 cm.

Fig. 32. Cotton bands for women's hair (Izozó): a (I. A. 646); b (I. A. 641). (Cf. Fig. 141 /see p. 201/.)

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Izozo

/25/

Ce 301 The way these tembetás are used has often been described. Figure 27 shows an Izozó man from whose pierced lower lip projects a round stone disk. When these Indians use the tembetá, they pass it from the inside through the perforation in the lip so that its base is between the row of lower teeth and the lower lip, with the cylinder sticking out from the lip.

C Ce 301 The lower base of three of the Izozó tembetás is quite flat, and only the lower base of tembetá I. A. 129 has a clearly concave form. This is of interest because v. Nordenskiöld and v. Rosen, when they describe the Chiriguano and Chané tembetás mention only those which have a concave base (110).

110. Nord. 2, p. 72.

According to Nordenskiöld, the Chiriguano and Chané sometimes use wooden tembeta's in the form of flat cylinders (111).

111. Nord. 2, p. 72.

Ce 301 237 [123] As already mentioned, I obtained simple wax tembetá from the Izozó. The old man who took it out of his lower lip to give it to me doubtless was using it provisionally for lack of another tembetá, in order to close the perforation in his lower lip and prevent the saliva from coming out.

C Ce 304 301 [622] The Chiriguano and Chané ordinarily do not have the custom of piercing their ear lobes. According to Nordenskiöld (112),

112. Nord. 2, p. 77.

the caciques formerly used pendant earrings set with green
C Ce [177] stones. If the younger women and girls have recently begun
to use earrings, they are imitating this custom of the whites.
Ce 301 The cacique of the Izozó in Toledo told me that the women
had gold and silver earrings, which at that time they had hidden.

Chane SF8
Izozo

/25 cont./

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Cutting and Combing the Hair, and Head Adornment

The women wear their hair plaited into long or medium long braids hanging down to their shoulders (113). As can be seen in Figures 4, 5, and 12 and in the photographs of Chiriguano women published by Lehmann-Nitsche, the hair of the women and girls is always parted over the forehead. The girls always have such a part from childhood. (See Fig. 8 /see p. 28/.) At the time of the first menstruation, the girls' hair is cut short (114), and the women also cut their hair in the event of the death of the husband or one of their close relatives; sometimes they cut it twice when the husband dies (115).

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[765]

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At the nape of the neck, and sometimes also at the top of the head, the hair is tied together with cotton bands. The collection which I brought to the Sociedad Cientifica del Paraguay contains 29 of these bands used by Izozó women, all of which have the same typical form.

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Bands for Women's Hair, from the Collection

(I. A. 624-652.) (Izozó.) (I. A. 646 and 641 shown in Fig. 32a and b.)

The length of these bands for the hair, on the average, is 1.04 cm. /sic/. The longest band measures 1.45 meters, and the shortest, 0.65 meters. The average length of the tassels is 14.3 cm. The longest tassel measures 17.5 cm.; the shortest, 9 cm.

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113. See Lehmann-Nitsche, op. cit., Plates XI and XII.

114. Nord. 1, p. 210. V. Rosen, op. cit., p. 201.

115. Nord. 1, p. 220.

Chane SF8
Izozo

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The form of these bands, all of which have been made of cotton, is in general the same. As Fig. 32 shows, they consist of a long middle part which has at its two ends a sort of tassel made up of some strings provided with knots. The middle part generally consists of a cord plaited with three skeins of thread like a braid. But it can also be in the form of a band if more than three skeins of thread have been plaited as shown in Figure 32a. The tassels of these bands are made in the following way: The ends of the threads of the middle part are wrapped by another thread in such a way that knots are made with the same thread, one directly after the other or at a certain distance apart. The number of these pendants with knots varies between three and eight with regard to the bands in the collection, but in only four cases is the number over five.

From the figures given with regard to the length of these hair bands, it can be seen that their length can differ greatly. The longest band measures more than twice the length of the shortest in the collection. The bands have been made of threads of very different colors. Thus there are among them white ones, blue ones, or some of a violet or gray-brown color, with different shadings up to almost black. Generally, the middle part and the thread that forms the knots of the tassels are of the same color. Only in the case of band I. A. 629 is the color of the middle part different from that of the tassels.

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According to Lehmann-Nitsche, some of the Chiriguano women who were the subjects of his anthropological investigations also wore such bands in their hair, and therefore we can consider these to be a cultural possession common to the Izozó and the Chiriguano. But, according to this author, those that he saw among the Chiriguano women, which he describes as "cords decorated with a series of knots," were made of wool threads. The Chiriguano women used them in such a way that their hair was interlaced with them (116).

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116. Lehmann-Nitsche, op. cit., p. 56.

C /26 cont./

301 One head ornament used by the Chiriguano women at festivities and as a special mark of distinction is still to be mentioned. This ornament, described by Nordenskiöld, is made up of a forehead band with a long pendant tied to the back part as decoration (117).

117. Nord. 2, pp. 92 and 93 and Fig. 28.

C
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302 The Chiriguano and Chané men today in most cases wear their hair in the modern fashion, cut short. The two Chiriguano boys shown in Figure 7 are even wearing a side part with rodete /hair arranged on the top of the head/, perhaps especially prepared for the photograph. Ce 302 The hair of the Izozó boy shown in Figure 11 is rather long on the front part of the head, but the hair has been cut in the back and on the sides as well. C 302 Only the older men, and, according to Nordenskiöld, in the Chiriguano towns of the upper Pilcomayo River the young men as well (118), wear the hair long and wrapped in a special manner around the head. Lehmann-Nitsche (119) reports to us specifically on this hair style of the old men as follows: "Their hair had apparently never been cut and was combed in a special manner; after it had been thrown to the back, they would part it into two halves with their hands, to the right and to the left, respectively, then the right half is brought forward and wrapped toward the left around the head in the form of a Muslim turban, while the left half is wrapped around the other way." C [301] The rodetes of the Chiriguano men described by Lehmann-Nitsche were tied up with ordinary handkerchiefs. Ce 301 302 Among the Izozó I found some narrow bands /27/ which were used especially for this purpose, and

118. Nord. 1, p. 202.

119. Lehmann-Nitsche, op. cit., p. 56.

Chane SF8
Izozo

Ce 301 302 /27 cont./
Nordenskiöld shows in a photograph a Chané man with such a band (120). According to information in the Annuae litterae Societatis Jesu of the year 1605, the Chiriguano men previously wore a tonsure like that of the Guaraní in Paraguay and the Tupinambá on the Brazilian coast: "Coronis in modum nostrorum sacerdotum utuntur" /coronal in the style of our priest/ (121).

C 302 171 120. Nord. 1, Plate 20.

121. Métraux I, p. 467.

Ce 301

Men's Hair Bands

I. A. 653-660. (Izozó), woven of cotton. (Fig. 30: I. A. 660, 653, 655, 656.)

The average length of these men's hair bands measures about one meter. The longest is 1.18 meters and the smallest 0.91 meters. Although the length of all of these bands is almost the same, there are quite big differences in their width, the width varying between 1 cm. and 3.3 cm. The narrowest of these bands were woven plain, without decorations, and are in part white, in part later dyed with blue, red, or blue-gray dye. The two widest bands, 3.0 and 3.3 cm. wide, respectively, show simple ornamentation produced by the weaving. I shall deal with the details of the technique of this weaving and its ornamentation in the chapters on weaving and art.

Beside these bands woven out of cotton, the Izozó have men's hair bands which are longer and wider and woven out of human hair, ending in fringes at the two ends.

/27 cont./

Men's Hair Bands Woven out of Human Hair

C Ce 301 439 These bands woven out of human hair correspond, with regard to their manufacture, to the bands that the Chiriguano and Chané make today in great numbers to sell to the whites. These "fajas," as they are commonly called today, represent an article eagerly sought by the whites who are in contact with these Indians, and especially by the soldiers, who wear them as a belt. C 301 291 178 One of the two Chiriguano men shown in Figure 6 wears such a faja as a belt, and, because we can surmise that today this is their principal use among the Chiriguano as well, we shall deal with them in the following chapter devoted to the description of clothing.

C 291 177

Straw Hat (kandáo of the Chiriguano

I. A. 554. Diameter 30 cm. Height 12 cm. (Fig. 99.)

The technique of this hat plaited out of palm-leaf fibers is not native since it is of modern manufacture. Ce [291] [177] As Figure 9 shows, the Izozó men also wear such hats.

Caps Made with Crochet Hooks

I. A. 442 and 443. (Chiriguano.) Made of Wool. Height 15.5 cm. and 14 cm., resp.

These two crocheted wool caps, which I obtained from the Chiriguano in Machareti, must also be considered as of modern manufacture.

Chane SF8
Izozo

/28/

Combs (kívua) in the Collection

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I. A. 740. (Found on the road between Capirenda and Garrapatal. Length 9.5 cm. Width 9 cm. (Fig. 29a.)
I. A. 1327. Izozó. Length 7.5 cm. Width 3.5 cm. (Fig. 29b.)

The two combs in the collection, coming from the Izozó, represent two completely different types of comb. To the first type belongs the comb I. A. 740, which is made up of some little wooden sticks held together between two transverse pieces of cane interwoven with threads. (Cf. Fig. 29a.) The comb of the second type, I. A. 1327, has simply been carved from a single piece of flat wood. (Cf. Fig. 29b.) A comb similar to I. A. 740, coming from the Chané, is shown by Nordenskiöld in a drawing (122). The three Chiriguano

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122. Nord. 1, Fig. 109.

combs shown in a drawing by Nordenskiöld (122) /see footnote 122 above/ belong to the second type and have been carved from wood, like the Izozó comb I. A. 1327. But in contrast to this one, the upper parts of their backs have been carved. Likewise the Chiriguano combs shown in drawings by v. Rosen and Métraux (123) are decorated with such carving.

123. V. Rosen, op. cit., Fig. 196.
Métraux I, Plate 87.

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Up to now there has been some doubt as to how these two different types of combs might be distributed among the Chané and the Chiriguano. According to Nordenskiöld (124),

124. Nord. 2, p. 81.

the Chiriguano only have combs carved from a single piece of wood, and the Chané commonly have the type of comb with small sticks and rarely the simple comb carved from wood.

Chane SF8
Izozo

/28 cont./

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V. Rosen and Métraux found among the Chiriguano combs made of little sticks (125), and, as already mentioned, I obtained these two types of comb from the Izozó. According to this, I believe that we must decide the question of the manner by which the two types of comb appear simultaneously among the Chiriguano and among the Chané, but noting first that among the latter the comb made of little sticks is more common and among the former the wooden comb is more common.

Because the diffusion of simple combs carved from wood, like those that the Chiriguano and the Izozó-Chané have, is relatively restricted among the other tribes of South American natives, while this type of comb was known to the ancient Peruvian culture, we must also include this cultural possession among the ancient Peruvian influences (126). The combs fitted with little sticks, which we know from the Chané and the Chané-Izozó, are different from such combs used by most of the Chaco tribes, for example, by the Churupí /Chulupi/ and the Maká /Maca/, not only with respect to its material but also with respect to its method of manufacture. But I do not accept Nordenskiöld's opinion, according to which those Chané combs are different, in that they are only usable on one side, from those of the Chaco tribes, which were usable from both sides (127). The Chaco Indian combs furnished with little sticks that I am familiar with are also used only on one side for combing, inasmuch as the other side is the handle. We can be quite sure of that because the little sticks of cane that form the teeth of the comb are pointed at only one end. The

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125. V. Rosen, op. cit., p. 202. Métraux I, pp. 467 and 468 and Fig. 123.

126. Nord. 2, p. 81.

127. Nord. 1, p. 204. Métraux I, p. 467.

Ce 322 412 171 /28 cont./ The main difference between the Chané combs and the combs of the Chaco tribes is that the teeth of the latter are made of little sticks of cane, and the teeth of the former, of little sticks of Ce 322 412 any other kind of wood. The /29/ wooden teeth of the Izozó comb in our collection are between two flat little sticks of cane vertical to them, and on the handle end, between the little sticks whose lower parts form the teeth, shorter little sticks have been inserted, so that at the lower part of the Ce [294] comb there is a certain distance between the teeth. The lacing, consisting of cotton threads, covers the upper part of the comb as far as the edge, but also slightly covers the lower part which forms the teeth. The lacing is not secured with wax.

C Ce 302 824 With respect to hair care, we still must mention the data of Nordenskiöld and of Métraux (127) /see footnote 127 above/ to the effect that the Chiriguano and some of the Chané rub their hair with "Nyantéra" seed ("ñitira," according to Métraux), and the Chané of the Parapití with the rind of the mistol /Zizyphus mistol/. "yuag."

C Ce 302 178 [171] From Father Lizárraga's description (128), we know that the Chiriguano and Chané in the past plucked out the hairs of the body, except from the head, as do most of the Indians of South America. Father Lazarraga /sic/ says that the Chiriguano plucked out their eyebrows and eyelashes. This custom does not exist today, and the photographs of nude Chiriguano men shown by Lehmann-Nitsche (129) show that today as a general rule they do not remove hair from the pubic regions. Also one meets today some middle-aged men who have mustaches, such as the cacique of the Izozó shown in Figure 10 and some of the Chiriguano men shown in drawings by Lehmann-Nitsche (130).

128. Moreno II, p. 101.

129. Lehmann-Nitsche, op. cit., Fig.

130. Lehmann-Nitsche, op. cit., Plates VIII-X.

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Ce /29 cont./

412 Because of this change the implement for plucking hair, con-
301 sisting of small tweezers, formerly very common, has naturally
302 lost a great part of its importance today, and similarly, in its
178 transformed state as a chest ornament, it is rarer. I found such tweezers among the Mataco and the Churupí. Unfortunately I did not succeed in acquiring such tweezers or the corresponding chest ornament, called "boivera" also by the Chiriguano. Nordenskiöld describes these tweezers in detail (131),

131. Nord. 2, pp. 81 and 82.

and he adds that the Chiriguano also use small sticks of cane to pluck out hair.

C The form of these tweezers made of metal corresponds to
412 that of the tweezers known through finds made in the burials of
301 the ancient Peruvians. Today these tweezers are normally
171 made of any piece of tin plate or sheet iron, which, when provided with a cord, they use for chest ornaments, besides their original purpose. This custom of using tweezers as a chest ornament was very common among the ancient Peruvians. Among the latter's necklaces there are many that, apart from other things, consist of silver tweezers. It was customary among the ancient Peruvians that these enlarged tweezers, unsuitable for their original purpose, be transformed into a pure and distinctive ornament. The Museum of Ethnography in Berlin has such ornaments in the form of depilatory tweezers, made
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301 of copper, silver, or gold, in great number, one example of
[174] which is 52 centimeters in length (132). Therefore I suppose

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[113] 132. Cf. Max Schmidt: Kunst und Kultur von Peru, Berlin, 1929, pp. 83, 369, 397, and 399.

we must deduce that the Chiriguano custom of using as a chest ornament a silver ornament in the form of one of those tweezers is due to ancient Peruvian influence. There are several specimens of the "boiveras," now rare and doubtless most of the time carefully kept from the view of the whites, in

/29 cont./

301 European museums. These are not made by the Chiriguano
[439] themselves, but by their mestizo neighbors and sold to the Indians. The external form is still that of tweezers, much enlarged. But the *boivera* of today, discounting its size, also cannot be used for plucking hair because the two parts /30/ of its lower edge have been soldered. The fact that the decoration of the surface is not still primordial is explained by the fact that the Chiriguano are not the makers of these ornaments.

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Clothing and Adornment

From the 16th century we have the brief description of the Chiriguano by Bishop Lizarraga (133) where, among other things, it is said: "They go about naked or at the most sometimes have a short shirt /*camisatilla*/ down to the navel." We
174 can assume that this statement by the Bishop as of that time
291 refers only to the Chiriguano men, because it is likely that by the time of their immigration the Chiriguano women were wearing a garment which covered their genital organs, as we know the Guaraní women of the ancient Province of Uruguay
[171] did (134). It is likely that this garment had the same form as the "*tipoy*," which is a garment in the form of a poncho without sewing and which even today is very common among Chiriguano and Chané women, as well as among various other Indian tribes of South America.

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[113] 133. Lizarraga: "Descripción et población de las Indias /Description and population of the Indies/." In Moreno II, p. 101.

134. Serrano, *op. cit.*, pp. 123 and 124.

Chane SF8
Izozo

/30 cont./

Ce 291 177 The Chiriguano and Chané men whom I saw were dressed in the European manner, as, according to Nordenskiöld, is the common custom among them today (135). Yet many C [291] [177] Izozó men whom I met in Toledo did not have such complete European clothing. Several of them had no shirt, and various others, especially young men and boys, went about without trousers. But no doubt such a state was only temporary, a result of the exceptional condition of the Izozó transplanted Ce [123] from their usual districts to Toledo. When I passed out clothing to these Indians in Toledo, all of those who were lacking garments presented themselves. On the following day this scarcity was more evident among those attracted by the donations made on the day previous. Most of the boys appeared trouserless then, because they had seen that those who had not had such an article of clothing had been favored on the day before.

C Ce 291 Of the native garments the men still use the one called "chiripá," the poncho, and the simple manta. According to Nordenskiöld (136), they sometimes still wear a "tirucumbai" shirt, which consists of a poncho whose two sides have been sewed together up to the arms.

The chiripá consists of a quadrangular piece of material which passes between the legs and whose two ends are stuffed, before and behind, into a belt. Worn in this way, the chiripá covers the genital organs. Figure 11 shows an Izozó boy dressed in such a chiripá. Nordenskiöld also shows a drawing of a Chané boy dressed in a chiripá (137). According to this author, the chiripá is also often used by the Chiriguano and Chané men when they are working.

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135. Nord. 2, p. 59.

136. Nord. 2, p. 59.

137. Nord. 1, Fig. 110.

Chane SF8
Izozo

/30 cont./

C Ce 291 [439] [126]

The poncho is a garment in common use even today among Chiriguano and Chané men and boys during the cold season. Figure 17 shows a Chiriguano boy wearing a poncho. Because ponchos today, like the fajas, are an article eagerly sought by the whites and are often made to be sold commercially, I tried to collect only ponchos worn by the Indians themselves.

C Ce 291 126

/31/ Ponchos (asó'ia) in the Collection

I. A. 423.	(Chiriguano.)	Of wool.	Length	1.45 m.	Width	1.14 m.
I. A. 424.	"	"	"	1.70 m.	"	1.46 m.
I. A. 425.	"	"	"	1.65 m.	"	1.32 m.
I. A. 426.	"	"	"	1.68 m.	"	1.39 m. (Fig. 117.)
I. A. 427.	"	Of cotton.	"	1.36 m.	"	1.95 m.
I. A. 808.	(Izozó)	Of cotton.	"	1.46 m.	"	1.35 m.
I. A. 809.	"	Of wool.	"	1.42 m.	"	1.09 m.
I. A. 110	"	"	"	1.62 m.	"	1.38 m.
I. A. 812	"	"	"	1.16 m.	"	1.17 m.
I. A. 813.	"	"	"	1.16 m.	"	0.78 m.
I. A. 814.	"	"	"	1.36 m.	"	0.68 m.
I. A. 815.	"	"	"	1.28 m.	"	0.64 m.
I. A. 819.	"	Of cotton.	"	1.26 m.	"	1.10 m.
I. A. 823.	"	Of wool.	"	1.40 m.	"	1.30 m. (Fig. 116.)
I. A. 825.	"	"	"	1.50 m.	"	1.22 m.
I. A. 830.	"	"	"	1.40 m.	"	0.97 m.
I. A. 833.	"	Of cotton.	"	1.56 m.	"	1.25 m.
I. A. 834.	"	"	"	1.26 m.	"	0.93 m.
I. A. 835.	"	"	"	1.42 m.	"	1.21 m.
I. A. 836.	"	"	"	1.08 m.	"	0.71 m.
I. A. 837.	"	"	"	0.96 m.	"	0.78 m.

C Ce 291

In order to explain the above-mentioned measurements we must say that the measurements of length refer to the entire length of the poncho when stretched out. As Figure 17 shows, the poncho is used in such a way that the slit, being in its center,

Chane SF8
Izozo

/31 cont./

C Ce 291 is brought over the head so that the slit is in the direction of the middle axis of the human body and the middle of the poncho across the shoulders, one part hanging in front and the other behind. Thus the distance between the lower edge of the poncho and the shoulders of the man who is wearing the poncho corresponds to half the length of the poncho when stretched out. Only in the case of two of the Izozó woolen ponchos is half the length equal to the width. I shall deal with the manufacture and decoration of these ponchos in the chapters on the technique of weaving and art.

Ce 291 [286] [513] [[126] The Chané of the Parapití River still often wear mantas woven of wool, which they also use to sleep on or to cover themselves with when they are sleeping (138). I have acquired nine of these mantas from the Izozó, four of which had been made from ponchos, the slit in the center of them having been closed by sewing. Among the other four mantas which had been made as mantas from the first, the relationship between the length and the width can vary greatly. There are some nearly square and others three times as long as they are wide. C 291 286 296 From the Chiriguano in Machareti I obtained only one piece of woven material which corresponds to these mantas, and it was already much mended.

Mantas in the Collection

C Ce 291 126

I. A. 585.	(Chiriguano.)	Of cotton.	Length	1.38 m.	Width	1.27 m.
I. A. 816.	(Izozó)	Of wool.	"	2.20 m.	"	0.60 m.
I. A. 817.	"	"	"	1.80 m.	"	1.20 m.
I. A. 818.	"	"	"	0.68 m.	"	0.60 m.
/32/						
I. A. 824.	"	"	"	1.22 m.	"	1.30 m.
I. A. 826.	"	"	"	1.28 m.	"	0.44 m.
I. A. 827.	"	"	"	1.40 m.	".	0.92 m.
I. A. 828.	"	"	"	1.56 m.	"	1.66 m.
I. A. 829.	"	"	"	1.27 m.	"	1.25 m.
I. A. 831.	"	"	"	1.74 m.	"	1.24 m.

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138. See Nord. 1, p. 202.

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291 I have already mentioned fajas, used today as belts by the Chiriguano men, in the chapter on cutting and combing the hair and head ornaments. I shall deal with their manufacture and decoration in the chapters on the technique of weaving and art.

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Fajas (Izozó: kuakuá in the Collection

291 I. A. 428-441. (Chiriguano.)
[126] I. A. 738, 803-807. (Izozó.)

Only the Izozó faja I. A. 738, shown in Figure 414, which measures 1.30 m. long and 3.7 cm. wide, differs with respect to the technique of its manufacture and its decoration, which we must attribute to outside influences, from the other fajas collected among the Chiriguano and Izozó. These correspond to one another quite minutely with respect to their dimensions, the weaving technique, and the ornamentation. Moreover, these Izozó fajas have been woven exclusively of cotton and the Chiriguano fajas have been woven exclusively of wool, with the exception of one (I. A. 434), whose warp contains not only cotton threads, but also wool threads. All these fajas are more than 2 m. long. The longest of the Chiriguano fajas measures 2.86 m.; the longest of the Izozó, 2.70 m. The width of the Chiriguano fajas varies between 8.5 and 16 cm., and that of the Izozó ones, between 10 cm. and 19.5 cm.

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[178] The women and girls, much more than the men, have preserved their original garb, which consists of a "tipoy." As the photographs in Figures 3, 4, 8, 12, and 14 show, the modern shirt or jacket made of modern material has often been added to the tipoy, but has not replaced it; the wife and three daughters of the Izozó cacique shown in Figure 12 are wearing the tipoy, as are almost all the Chiriguano women shown in Figure 4. Certainly most of the time the tipoy is used as a skirt, the upper part being rolled over the hips like a long belt.

/32 cont./

Ce 291 The cacique's wife and the eldest daughter shown in Figure 12 wear the upper part of the tipoy over one shoulder. The oldest woman shown in Figure 14 wears the tipoy in the old fashion, securing it with pins or cactus thorns above the two shoulders (139), so that two openings remain, through which the two arms can pass. Photographs shown by Nordenskiöld (140) and v. Rosen show that there are still other variations in the way of wearing the tipoy.

Ce 291 126 I obtained from the Izozó three of their tipoys, two of which were woven of cotton and one of wool.

Tipoys in the Collection

I. A. 820.	Izozó	Of cotton.	Length 1.26 m.	(Fig. 113.)
I. A. 837.	"	Of wool.	" 1.61 m.	
I. A. 838.	"	Of cotton.	" 1.37 m.	

Ce 291 /33/ One special feature of these tipoys of the Chané-Izozó and also of the Chiriguano in comparison with all the tipoys that we know from other tribes is their great size, and we can doubt that these tipoys were so large in past times. Ee [114] The indication by Viedma (144) that the Chiriguano women wore only a piece of cloth around their hips implies the opposite answer. I shall concern myself with the manufacture and the decoration in the chapters on the technique of weaving and art.

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139. Cf. v. Rosen, op. cit., p. 201.

140. Nord. 1, Fig. 106.

144. Viedma, op. cit., p. 134. According to Nordenskiöld.

/33 cont./

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Of Chiriguano and Chané ornaments there have already been mentioned in the preceding chapters the hair ornaments, the tembetá, men's ornament in the form of hair-plucking tweezers, and the earrings now used by women. Among other ornaments the only important ones are the women's necklaces. Most of the women I photographed were provided with necklaces (mbo' ɨ) which consist exclusively of imported objects, such as glass beads, metal pendants, and similar things, and for this reason they have no ethnological importance. Nordenskiöld saw among these Indians necklaces made of beads of turquoise and "chrysocol" /chrysocolla/ and of black seeds (142). V. Rosen shows in a drawing such a

142. Nord. 1, p. 201. Nord. 2, p. 92.

Chiriguano necklace made of turquoise and glass beads (143).

143. V. Rosen, op. cit., Fig. 198.

According to that author, these necklaces were sometimes also used by men (144). Silver pins for fastening the tipoys,

144. V. Rosen, op. cit., p. 203.

in the form of those of the ancient Peruvians, can still be found also. But these too are not the product of an original industry, but are received from outside silversmiths (145).

145. Nord. 2, pp. 93 and 94.

C /33 cont./

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Ring (moškaregua) in the Collection

I.A. 1321. (Chiriguano.) Gift of Father Ayala Solis. Diam. 2cm.

Finally I shall mention here a ring obtained by Father Ayala Solis from the Chiriguano and donated by him to the Museo de Historia y Etnografía del Paraguay. The ring was made of metal from a cartridge shell.

Ce
291 The cacique of the Izozó shown in Figure 12 wears sandals (Chir.: mbipása. Izozó: pɨapá). Generally the men and women go around barefoot. But both sexes use sandals if they are to walk on stony or thorny ground (146).

146. Nord. 1, p. 203. Nord. 2, p. 69, Fig. 23. V. Rosen, op. cit., p. 207.

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291
17 The region of distribution of the sandal in South America leads us to assume that the Chiriguano did not first receive this item from the whites, but earlier, and that it came from the culture of the ancient Peruvians (147).

147. Cf. Nord. 2, p. 69.

Treatment of Illnesses and Burial

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[114]
C
[114]
C
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171 In the Indian settlement in Toledo there was arranged a small hospital in which the sick Izozó were receiving medical treatment. For that reason I did not have the chance to make investigations among them about the native treatment of the illnesses of these Indians. Nor did I have the chance to make such investigations in Machareti. Therefore, I refer to the investigations /34/ Nordenskiöld and Métraux made on this subject (148), and I wish only to

148. Nord. 1, pp. 216 and 217. Métraux 1, pp. 480-488.

mention here that among the Chiriguano and Chané, as among

C
Ce /34 cont./
756 most other Indians of South America, there is a professional
171 physician who is charged with the treatment of the sick, this
treatment in most cases consisting of sorcery among these
C Indians too. The physician attempts to dispel the evil by
Ce sucking out foreign objects which have penetrated the body of
755 the bewitched sick person. In addition to such treatment,
757 remedies are used among the Chiriguano and Chané, which,
1824 in addition to those made of plant substances, include the
1230 fat of various animals applied externally for different illnesses.
Ce The Chané treat wounds with boiling water.
762

Burial among the Chiriguano and Chané who live outside
C
Ce the missions is generally still done in urns, according to
764 primordial custom. According to Nordenskiöld (149), the
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149. Nord. 1, p. 258.

large pots in which chicha is prepared are also used as funeral urns, and another pot is used to close the urn. Often the dying person, even before being completely dead, or soon after death, is crammed into the urn in a squatting position. A
C calabash of water is placed with the dead person in the urn,
Ce which is buried within the house. Commonly the house, after
768 the burial, is abandoned for some time, but is occupied again
C later. Such a funeral urn of the Chiriguano of the Caipipendi
764 Valley is shown in a drawing by Erland Nordenskiöld (150).
415

150. Nord. 1, Fig. 113.

Up to half of the urn, which is provided with a cover, is disentered. Nordenskiöld's statement that the Chiriguano use the same pots which serve for the preparation of meals as funeral urns is significant. From that we can deduce that a funeral urn found in other regions might also have served, during the lifetime of the dead person buried in it, some other purpose related to the economy of those Indians.

/26 cont./

Play

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Of the different kinds of games, those found among the Chiriguano and the Chané are those of movement, those of skill, and those of chance. But the games of movement are only performed by children.

Ce
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Among the games of movement we must mention here principally the game of ball, struck with the head. Nordenskiöld saw Chané boys play this. A solid rubber ball is first thrown into the air, and two youths parry it with their heads, without touching it with the hand. This game, called "toki" by the Chané, no doubt was much more common in former times and was also practiced by adults. This was stated to me by the cacique of the Isosó in Toledo and was stated long ago by the author of Litterae Annuae for 1605 with regard to the Chané (151).

151. Litterae Annuae, 1605, p. 409.
According to Nordenskiöld 2, p. 101.

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It also follows from a Chané legend noted by Nordenskiöld (152).

152. Nord. 1, p. 281.

According to this legend, the fox "Aguaratumpa" sets the white condor free only on the condition that he obtain a white rubber ball. In what follows, the legend describes in detail how first the ostrich "Yandu" plays with the bat "Andira" with this ball, hitting it with his head. When the White Condor came flying out with the white ball, the Demon Aguaratumpa orders a bird to get a black rubber ball, and with this he plays the entire town, and the ostrich "Yandu" this time with the fox Aguaratumpa. /27/ The latter exchanged his ball for a stone and threw it at the ostrich. The latter, stopping the stone with his head, died.

Chane SF8
Paressi SP19

Ce /35 cont./

526 773 This legend, from which I am mentioning here only the parts referring to the game of ball struck with the head, clarifies for us several interesting points about this Chané Ce [314] game. In the first place it shows us that it was difficult for the Chané to obtain within their territory the material neces- Ce [439] sary for the balls, because there is no rubber there. Just as the Chané today buy their rubber balls in Santa Cruz de la Sierra, so formerly they must have had to obtain them from afar. In addition, the distinction between the two different kinds of balls in the legend, the white one and the black one, Ce [171] is interesting. The black ball no doubt corresponds to the solid rubber ball with which the Chané children still play this P [526] game today, while the white ball doubtless corresponds to the type of ball with which I saw the Cozarini-Paressís, or Paressi-Kabichís /Cabishi/, play in 1910. This rubber ball P [524] of the Paressi-Kabichís, light in color, more or less white, was hollow and therefore, in spite of its relatively large size, very light and bouncy, and therefore much more satisfactory for hitting with the head than a solid, hard rubber ball. Unfortunately, Nordenskiöld gives no information on the size of the solid rubber balls of the Chané, but we must assume that they are small, because contact with a solid rubber ball of the Paressís-Kabichís would be too hard for a head, espe- P 773 526 cially for a child's head. In several legends of the Paressís in Utiariti (Mato Grosso), which I recorded in 1928 but have not yet published, there figures a game with the ball hit with the P [776] head. Also in these legends there are deities who play this game and it has an absolutely religious character. It is re- Ce [171] lated that the deity of the moon, the day before his nuptials with his sister, plays this game with his brothers, and in another legend they play it as they do in the Chané legend, between animal demons. The turtle plays ball with the young son of the jaguar, and, his ball being of stone, kills him with a shot aimed at the head. Thus there is also a parallel here with the Chané legend in which the fox kills the ostrich with his ball changed into stone.

/35 cont./

526 Nordenskiöld did not see the Chiriguano of the Sierra play the game in which the ball is hit with the head, but he did hear it said that formerly they had played this game, called "bondi" by them, and that, like the Chané, they had used solid rubber balls (153). In my work published in this journal (154), I have already mentioned that, according to the Litterae Annuae of 1589 (155), the game with a ball hit with the head was also played by the Itatines-Guarayũs and undoubtedly with a hollow rubber ball, because it is described there as being very light. In 1791 Eder (156) mentions this game with a ball hit with the head for the Moxos /Mojo/, who not only used white, hollow rubber balls, but also used dark, solid ones. Several authors, older ones, and more recent ones, for example, Fernandez and de Orbigny, mention this game among the Chiquito (157). Nordenskiöld on his travels saw it played in addition to the Chané, by the Huari (158).

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153. Nord. 2, p. 104.

[113] 154. Revista de la Sociedad Cientifica del Paraguay, Vol. III, No. 6, pp. 116 and 117.

155. Page 434. According to Nordenskiöld.

[113] 156. Eder, Franc. Xav.: Descriptio provinciae Moxitarum /Description of the province of the Mojo/, 1791, p. 41. Cited in Nordenskiöld.

157. Nord. 2, p. 104.

158. Nord. 2, p. 104.

Chane SF8

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cc /35 cont./
526 According to these data concerning the region of spread
174 of the game with a ball hit with the head, we must assume
177 that the Chané, even before their subjugation by the Chiriguano,
must have known this game, and that the Chiriguano of /36/
the Cordillera, like the Itatines-Guarayús, received it earlier
c from the Chané. The Chiriguano also play the game with a
526 ball made of maize leaves struck with the hand, which we
[171] know from many other South American Indians (159). According to Métraux, this game is not played except at the
time when the maize is ripening, and it is related to the
cultivation of maize.

With respect to other games of movement, the Chiriguano
children play a game which corresponds to the game of polo
c and is very common among the Chaco tribes. The Chiriguano
[171] call it "taca." The ball is struck either, as among the Chorote
and the Churupí, with curved sticks or with a primitive
c
[177] racket (160). No doubt the Chiriguano received this game from neighboring Chaco tribes.

Of the games of skill, only one is played by adults and
cc this only by women. It is a kind of bowling game that the
[526] Chiriguano in Tihuipa call "itarapóa" and the Chané of the
Parapití "tecoróre" (161). The bowling pins in this game consist of two rows of maize kernels, two by two, one on top
of the other, or on a cob. They throw with stone balls or
with a hollow ball of baked clay with little pellets of the
same material inside (162).

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159. Nord. 1, p. 168. Métraux 1, p. 44 and Fig. 11.

160. See Nord. 1, p. 193.

161. According to Nord. 1, p. 192.

162. Nord. 1, p. 192 and Fig. 99.

/36 cont./

Ce
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Three other games of skill described by Nordenskiöld are played only by children (163). For one of these, called

163. Nord. 1, pp. 196 and 197.

"sóuki," they use two arrows fitted with maize cobs (164).

164. Nord. 1, Fig. 102.

These two games are played by the children of the Chané of the Parapití.

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Nordenskiöld saw the third game, called "parama," played by the children of the Chiriguano in the Caipipendi valley (165).

165. Nord. 1, Fig. 103.

With small round stones, propelled with pieces of baked clay, they try to knock down a button, or some such thing, from a rock.

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I obtained from the Chiriguano in Machareti some children's toys which belong to these games of skill.

Toys in the Collection

I. A. 504. Top (Chiriguano). Length 18 cm.
I. A. 505. " " " 16 cm. (Fig. 35b.)
I. A. 506. Rattle " " 25 cm.
I. A. 507. Small sling " " 55 cm.
I. A. 510. Toy called "mou-mou" (Chiriguano). Diameter of the disk 6 cm. (Fig. 36a.)

A specimen of a top similar to those mentioned (see Fig. 35b /see p. 89/) and originating among the Chiriguano of the Caipipendi valley is shown in a drawing by Nordenskiöld (166).

166. Nord. 1, Fig. 104. B.

/36 cont./

C
524 The small sling I. A. 507, made out of a small forked
177 stick, two strips of rubber obtained from an automobile tire, and leather, is not of native origin, nor is the rattle shown in Fig. 35a. /Plates XII-XIII appear here./

C
524 /37/ The toy shown in Figure 36a, called mou-mou by
857 the Chiriguano, is made of a small gourd disk with a toothed edge and a double string. The latter passes through two holes in the disk. By alternately twisting and stretching this string, a rapid rotation of the disk is produced, together with a
Ce humming noise. Among other Chané children's toys there
[524] are shown in drawings by Nordenskiöld a hoop with a rope,
[857] a musical instrument consisting of two bows (167), and a

167. Nord. 1, Fig. 104. C and D.

C
[171] small musket. The Chiriguano children in the Caipipendi valley and those of the Chorote also play with such muskets (168).

168. Nord. 1, Fig. 23.

C
524 Among the games of skill we must mention, finally, the string games, some of which are shown in sketches by Métraux, which a Chiriguano man made for him (169). The

169. Métraux I, pp. 443, 446. Plates 89 and 90.

Chiriguano children also know this game.

C There are two games of chance among the Chiriguano
Ce and the Chané. One, called "chúcaráy" by the Chiriguano
524 and "chunquanty" by the Chané, is played with four small boards, and the other, called "asúcarete," with a large number of boards, concave on one side and convex on the other (170).

170. Nord. 1, p. 191 and Fig. 95.

Plate XII

534

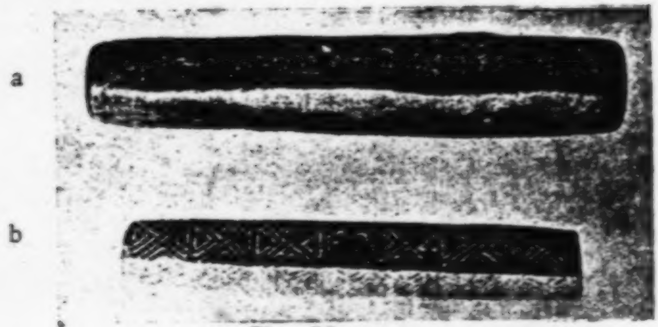

Fig. 33

524 →

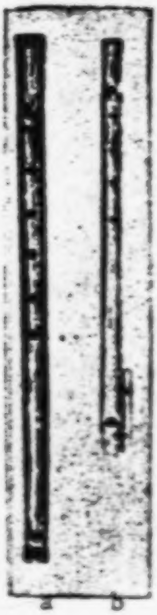

Fig. 34

534 ←

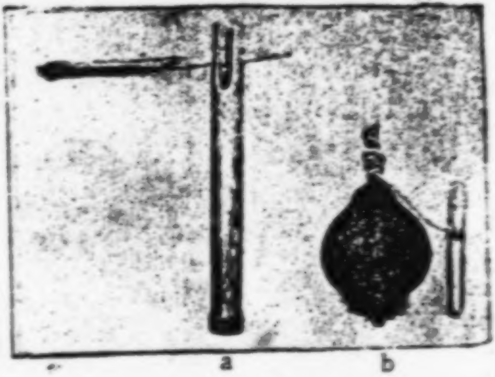

Fig. 35

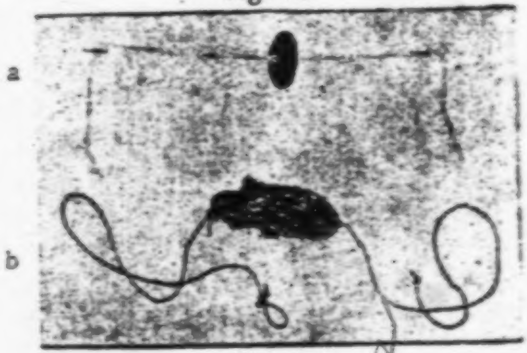

Fig. 36

/The captions appear on p. 91./

Chane SF8
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Plate XIII

Fig. 27

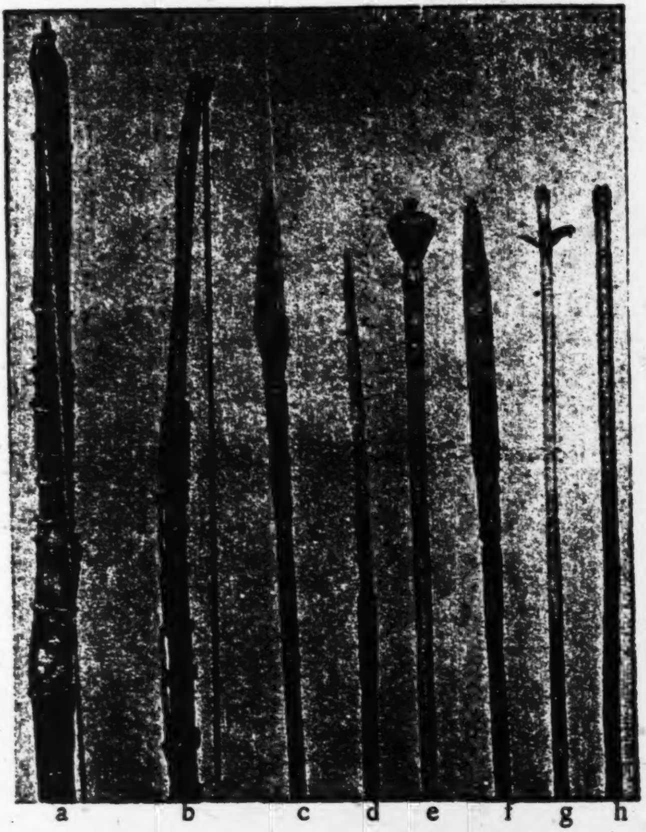

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Fig. 38

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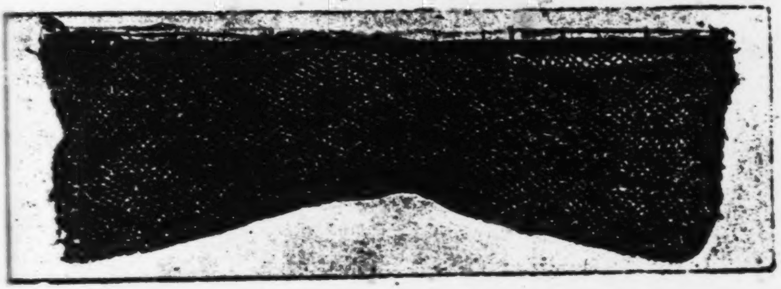

Fig. 39

/The captions appear on p. 91./

Chane SF8
Izozo

/Captions for Plates XII and XIII/

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Plate XII

Fig. 33. Wooden flutes, "serere" (Chiriguano): a (I. A. 492), length 20 cm.; b (I. A. 491), length 17 cm.

Fig. 34. a (I. A. 494): Cane flute (Chiriguano), length 41 cm. b (I. A. 495): double whistle of cane (Chiriguano), length 33.5 and 7 cm.

C
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Fig. 35. a (I. A. 506): rattle, a toy for children (Chiriguano), length 23.5 cm.
b (I. A. 505): top, a toy for children (Chiriguano), length 16 cm.

Fig. 36. a (I. A. 510): toy for children, "mou-mou" (Chiriguano), diameter of the disk 6 cm.
b (I. A. 509): sling (Chiriguano), length (without cords) 14 cm.

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Ce
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Plate XIII

Fig. 37. Bows and arrows: a (I. A. 757), bow (Izozó), length 1.32 m.; b (I. A. 756), bow (Izozó), length 1.41 m.; c (I. A. 519), arrow (Chiriguano), length 1 m.; d (I. A. 521), arrow (Chiriguano), length 0.85 m.; e (I. A. 534), arrow for birds (Chiriguano), length 1.11 m.; f (I. A. 748), arrow (Izozó), length 0.94 m.; g (I. A. 528), arrow (Chiriguano), length 0.94 m.; h (I. A. 750), arrow (Izozó), length 0.835 m.

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Fig. 38. (I. A. 517.) Macana (Chiriguano), length 0.64 m.

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Fig. 39. (I. A. 764.) Fishing implement (Izozó), length 73.5 cm.

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/37 cont./

These Indians received two games of chance from the whites, the game of dice, which they call by the Spanish name "daro," and the game with a cow's leg bone, which they call "taba."

Agriculture

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I have already explained in the chapter on food and drink that the cultivation of maize as an agricultural product is common, and among the Chané of the Parapití the cultivation of the sweet potato. Mandioca is only cultivated rarely and has no importance in the economy of these Indians. Various species of beans are planted, also one species of cactus, some gourds which have edible fruits, and also a little tobacco.

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In addition to these edible or stimulating native plants that are cultivated, there are some others received from the whites, but these have little importance in the economy of these Indians. According to Nordenskiöld (171), they are the following: sugar cane, peanuts, watermelon, muskmelon, figs, oranges and millet, and Métraux also mentions the pepper among them (172).

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[415]
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[386]

In addition to these edible or stimulating plants, there are cultivated various species of gourds whose fruits are not edible but are used to make containers, cotton for making thread, urucú for obtaining red dye, and, among the Indians of the Parapití, also a species of cane, Harundo Donax /Arundo donax/, which grows wild in great quantity on the banks of the Pilcomayo, but not on those of the Parapití River.

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171. Nord. 2, pp. 23 and 24.

172. Métraux 1, pp. 338 and 339.

/37 cont./

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The sort of agriculture which these Indians commonly practice is that which we can define with the term "el rozado" /the clearing/, which best corresponds to the technical German word "Waldrodung," which is used for this concept. A piece of woodland is cleared, and the land cultivated in this manner is planted as many times as possible until it is exhausted. According to Métraux (173), the place intended

173. Métraux 1, p. 334.

for planting is first cleared of underbrush, which is cut with a large stick edged on both sides, and this is burned on the site. Métraux /38/ has also compiled from the literature the respective statements on the method of planting maize (174).

174. Métraux 1, p. 337.

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[412]
[777]

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[177]

Almost all the implements used for this cultivation, such as spades and iron hoes, have been obtained from the whites. The wooden spade, which the Chiriguano doubtless received from the culture of the ancient Peruvians and which was formerly universally used by them, is very rare today (175).

175. Nord. 1, p. 188. Métraux 1, pp. 335 and 336.

According to Nordenskiöld, these spades were made of a hard wood and had an artificially formed handle. Two such spade handles with a special handhold at the upper end are shown in drawings by Nordenskiöld and two similar ones by Métraux (176).

176. Nord. 1, Fig. 89. Métraux 1, p. 336, Figs. 3 and 4.

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In the Chané legends written down by Nordenskiöld, there is also mentioned, in addition to the spade, the wooden punch, which is a very common agricultural implement among most

/38 cont./

Ce 412 773 of the Indians of South America who have agriculture. In one of these legends it is said that (177) Tunpa, after having created the grandparents of the Avás (Chiriguano) and Chané, gave them a wooden spade and a long carved stick, called "carumpa," and bows and arrows so that they might feed themselves with these implements. In the other legend it is told that the jaguar goes to get the punches when the fox wants to help him plant his field (178). C 412 From the indications by Métraux mentioned in the foregoing, it follows that the Chiriguano still use such an implement in their agriculture.

C Ce 241 731 The Chiriguano in Machareti had some plantings near their town, but, because of the extraordinary drought at that time, these had produced nothing. The Izozó near Toledo had cleared large areas, but were unable to plant for the same reason. C Ce 241 According to Nordenskiöld (179), the large plantings of the Chiriguano and the Chané are often far from their towns and are enclosed by thickets.

The Raising of Livestock

C Ce 231 Of the domestic animals native to South America, the Chiriguano and the Chané have the South American dog, which today is mixed with the blood of European dogs (180).

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177. Nord. 1, p. 260.

178. Nord. 1, p. 289.

179. Nord. 1, p. 183.

180. Nord. 1, p. 187. Nord. 2, p. 49.

Chane SF8

C /38 cont./
C 231 177 174 Because the ancient Peruvians raised various breeds of dogs, we
can assume that the Chiriguano received the dog as a domestic
animal from the ancient Peruvians. We can assume the same
with regard to the duck, which was also raised by the ancient
C Peruvians. Therefore I do not include the duck among the
[114] domestic animals that these Indians received from the whites,
as Nordenskiöld does. We do not know whether the Chiriguano
in times past might have raised the llama. From the fact that
guanacos exist in the territory located between the Parapití
and the Rio Grande, we can deduce that the raising of that
other species of Euchenia might have been possible in that
country.

C
C [175] The Chiriguano very early received such European domestic animals as the horse, the ass, the cow, sheep, goats,
[648] hogs, and chickens, which they captured in great quantities
in their continual raids on the Spanish settlers. In 16th century
documents there are repeated complaints about the extensive
C stealing of livestock by these Indians. Today the Chiriguano
Ce 497 411 648 361 and Chané do not have many horses, and they have never had
the /39/ pronounced character of a nation of horsemen. The
true weapons of war were formerly a long bow and arrows which
were also long, which cannot be used by a mounted horseman,
in addition to which their homes were formerly in the hills in
C regions which the Spaniards could not enter on horseback. In
Ce 231 certain parts of their territory the raising of cattle has some
importance (181). More general is the raising of sheep, pigs,

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181. See Métraux I, p. 340.

and chickens. Today one sometimes also finds among them guinea hens and turkeys (182).

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182. Nord. 1, p. 137.

/39 cont./

C Ce 231 Tamed wild animals are rarely found inside their houses, except that they do have some parrots (182) /see footnote 182 above/.

Hunting

C Ce 224 [433] [411] [439] We have explained before that, because of the lack of animals that can be eaten in the territory of the Chiriguano and Chané, hunting is secondary among their means of subsistence, and in accordance with this we know through old documents that the feathers for their arrows were introduced to the Chiriguano by other Indian tribes who were their tributaries (183). C Ce [231] The raising of domestic livestock gives them a greater opportunity to obtain animal foodstuffs. C 224 In accordance with the fact that the Chiriguano, at least today, are not first-class hunters, the most common method of hunting among them is the use of traps (184). C 223 Nordenskiöld describes three different kinds of traps, all three of which are used for catching birds (185). The first kind consists of a simple noose and is used C [171] with the help of calls. The second kind, which is common among various other tribes of Indians, is used, for example, also by the Kaingua /Caingua/. The third kind consists of a net made in two parts and fixed to the ground by means of stakes. Ce [993] [223] In one of the Chané legends recorded by Nordenskiöld, a trap for catching doves is mentioned (186).

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183. Moreno II, 121.

184. V. Rosen, op. cit., p. 205.

185. Nord. 2, pp. 32, 33, and 85, Fig. 10, 12, and 13.

186. Nord. 1, p. 279.

Chane SF8
Izozo

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126

/39 cont./

Bows and arrows are only incidentally used for hunting, and it is therefore difficult to collect them today among these Indians. From the Izozó I was able to acquire various bows and arrows, and from the Chiriguano a small bow for children and various arrows. Among these there are also two specimens for killing birds, provided with a club /maza/ at the tip. Because in particular cases we were often unable to decide if a type of arrow were used exclusively for hunting or for fishing or both, I shall list all the types of arrows together in the following list.

Bows (uirápa) in the Collection

I. A. 518	(Chiriguano)	Length 0.80 m.	Cord is strips of animal hide.	
I. A. 754.	(Izozó.)	Length 1.39 m.	" " "	
I. A. 755.	"	" 1.28 m.	" " "	
I. A. 756.	"	" 1.41 m.	" " "	(Fig. 37b).
I. A. 757.	"	" 1.32 m.		(Fig. 37a).
I. A. 758.	"	" 1.31 m.	" " "	
I. A. 759.	"	" 1.04 m.	" " "	
I. A. 760.	"	" 1.11 m.	Cord is a piece of cable.	

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/40/

Arrows (uij) in the Collection

I. A. 519. (Chiriguano.) Length 1 m. Iron point; its length 15.5 cm. Cane shaft. No feathering. (Fig. 37c.)

I. A. 520. (Chiriguano.) Length 0.99 m. Iron point; its length 20 cm. Cane shaft. Remnants of feathering.

I. A. 521. (Chiriguano.) Length 0.85 m. Wooden point; its length 28.5 cm. With feathering. (Fig. 37d.)

I. A. 522-533. (Chiriguano.). Wire points.

I. A. 534. (Chiriguano.) Length 1.11 m. Tip in club form; its length 5.5 cm. Cane shaft. With feathering. (Fig. 37e.)

I. A. 535. (Chiriguano.) Length 0.71 m. Tip in club form; its length 4 cm. Wooden shaft. With feathering.

I. A. 536. Wooden arrowpoint. (Chiriguano.) Length 25.5 cm.

Ce 411 126 /40 cont./

I. A. 747.	(Izozó.)	Length 0.97 m. Iron point; its length 24.5 cm. Cane shaft. Remnants of feathering.
I. A. 748.	"	Length 0.94 m. Iron point; its length 23.5 cm. Cane shaft. Without feathering. Fig. 37 f.)
I. A. 749.	"	Length 1.07 m. Iron point; its length 23.2 cm. Cane shaft. Without feathering.
I. A. 750.	"	Length 0.835 m. Iron point; its length 17 cm. Cane shaft. Without feathering. (Fig. 37h.)
I. A. 751.	"	Length 0.93 m. Iron point; its length 22.5 cm. Cane shaft. With feathering.
I. A. 752.	"	Length 0.92 m. Iron point; its length 27 cm. Cane shaft. With feathering.
I. A. 753.	"	Length 0.985 m. Iron point; its length 21.5 cm. Cane shaft. Perhaps with feathering.

C Ca 411 174 178 Of the seven Izozó bows, the first four on the list are good specimens made of hard wood and correspond in all details to the Chiriguano bows described by v. Rosen (187), except for their length, which is a few centimeters less than these. This difference in length is easily explained by the fact these Chiriguano bows were collected by v. Rosen in 1901 and 1902. It would be difficult today to find still among the Chiriguano bows as long as those which v. Rosen acquired 35 years ago. From Lizarraga's statement that the Chiriguano bows were of the same height as the bowman, it is evident that the bows of these Indians were formerly even longer than those described C [141] by v. Rosen. If, following Lehmann-Nitsche's somatic measurements mentioned above, we set the average height of Chiriguano men at 1.63 m., there is still a difference of 18 cm. between this figure and that of 1.45 m., which is the length of the longest bow among those collected by v. Rosen. We must consider this shortening of the Chiriguano and Chané bow,

187. v. Rosen, op. cit., pp. 206, 208.

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411 174 175 steadily progressing, a consequence of its degeneration resulting from its gradually falling into disuse.

Ce 411 The form of all the bows collected among the Izozó is the same, discounting the insignificant differences with regard to their length. The wood of the bow, which is approximately 3 cm. wide, is flat on the side towards the string and convex on the opposite side. To better fasten the bowstring, each of them is provided at its ends with a quite marked narrowing and always considerably shorter at the upper end than at the lower end. /41/ Three of these Izozó bows show, when not flexed, the reflex form already mentioned by v. Rosen with respect to the Chiriguano bows.

Ce 411 283 [237] [284] The bowstring, made of twisted strips of animal hide, is fastened in the common manner used by South American Indians. By means of a noose with a knot, it goes around the narrowing of the upper end of the bow, while the loop at the lower end is made so that it can either shorten or lengthen the bowstring as necessary. Cf. Fig. 37, a and b /see p. 90/. In all these bows a large part of the string is rolled up as a reserve around the wood of the bow.

Ce [237] Bow I. A. 757, whose wood shows cracks on the side toward the string, has wood reinforcements in two places, one of them consisting of a wrapping with thread and the other a piece of the skin of a cow's tail, which has been slipped like a sleeve over the wood of the bow. Cf. Figure 37 /see p. 90/.

Ce 411 The three bows I. A. 758-760, made of light-colored wood, correspond in form to the others, but they are poorly made and appear to be cheap merchandise for trading. Bow I. A. 760 even has a cable wire in place of a string.

C 411 524 The small Chiriguano bow I. A. 518 is a bow made for children for shooting light arrows with a wire point, which have been enumerated in great number in the above list.

c Ce 411 [223] The length of the arrows I collected among the Chiriguano and Izozó is somewhat behind with respect to the length of the corresponding bows. The longest among them is a Chiriguano arrow for shooting birds, fitted with a club rather than a point, with a length of 1.11 m. Among the arrows fitted with iron

/41 cont./

C Ce 411 points, one Izozó specimen reaches a length of 1.07 m., and a
Chiriguano specimen, a length of 1 m. This is the opposite
of the observations that v. Rosen made about Chiriguano
arrows, that they were as large or even larger than the bows.

C Without counting the Chiriguano arrows fitted with wire
Ce points, which no doubt are used only by children for shooting
[524] at fish or birds and which are often made with wooden shafts,
Ce arrow shafts are universally made of cane, taken from the
[249] plant Arundo donax, which, as I have already mentioned
[824] above, is cultivated by the Chané of the Parapití River. According
Ce to Nordenskiöld, the Chané formerly also used the Ubá
41 (Cymnerium sp.), which they call "chochio" (188). The
[824] arrows collected among the Izozó are provided with iron points.
Nordenskiöld also shows in drawings Chané arrows fitted with
wooden points in the form of a lancet or dentate (189).

C Among the Chiriguano arrows in the collection, there are
Ce two fitted with iron points, one fitted with a dentate wooden
411 point, one such wooden point without a shaft, and two arrows
for bird hunting that are fitted with a club instead of a point.
The Chiriguano arrows fitted with iron points correspond
throughout to the Izozó ones with respect to form and material.
C The iron point is joined to the shaft by means of a piece of split
Ce wood and a wrapping of cord made from special tree bark and
[284] fastened with wax. The lower end of the cane shaft has a
groove over which the end of the arrow is also fastened by a
wrapping of the same cord secured with wax.

C /42/ Some Chiriguano and Izozó arrows have feathering,
Ce others do not. While the feathering was lost on some of the
411 arrows that do not have it now, as can be discerned from the
237 remnants of wax which had served for attaching it, other arrows
C show clearly that they never had feathering. If there is feathering,
Ce the feather parts attached by means of wrapping with cord
[284] and wax are small, as are those of most of the
[171] Chaco tribes.

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188. Nord. 2, p. 26.

189. Nord. 2, Fig. 6, A and C.

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and wax are small, as are those of most of the Chaco tribes. In the diagram made by Hermann Meyer for the various types of South American arrows, the feathering of the Chiriguano and Chané arrows corresponds to those that this writer calls "Peruanische Pechfiederung" /Peruvian pitch-feathering/. The Chiriguano arrow provided with a dentate wooden point differs from the other arrows in that its point is attached directly to the shaft without interposing a special piece of wood. Otherwise, the form of its shaft, provided in this case with feathering, corresponds to the form of the arrow shafts fitted with iron points. V. Rosen (190), v. Nordenskiöld (191), and Métraux (192) show in drawings different types of Chiriguano arrows fitted with wooden points.

Métraux often found among the Chiriguano in the Caipipendi valley arrows fitted with two dentate wooden points, which the young men used especially for shooting jacus (193).

Of the two Chiriguano bird-hunting arrows fitted with a club at the upper end instead of a point (sõngo), only one specimen, I. A. 534, can be considered typical. As I have already mentioned, it is the longest arrow in the collection. The other arrow for hunting birds, much shorter and badly made, doubtless was used only by boys. The form of the clubs of these two arrows (cf. Fig. 37e) is the same and also corresponds to the form of the arrows of this kind shown in

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190. V. Rosen, op. cit., Figs. 206-214.

191. Nord. 2, Fig. 6 B.

192. Métraux I, Plates 8 and 9.

193. Métraux I, p. 347 and Plate IX, N. 1.

C /42 cont./
411 drawings by v. Rosen and v. Nordenskiöld (194). This club is

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194. V. Rosen, op. cit., Fig. 212. Nord. 7, Fig. 6. D and E.

fastened directly on the inside of the upper part of the shaft. The shaft of the larger arrow is made of the same cane as that of the other arrows, and that of the smaller arrow is light wood.
C
[239] The binding on the upper part and also on the lower part of the shaft of the longer arrow consists of cotton thread secured with wax. The two arrows have feathering and have the same groove at the bottom end of the shaft. Several specimens of Chiriguano bird-hunting arrows whose clubs show different forms are shown in drawings by Métraux (195).

195. Métraux I. Plates X-XI.

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[283] The special form of the club of the arrows for shooting birds (cf. Fig. 37e) and the special method of binding the shaft with a cord of tree bark and the length which these arrows formerly had lead us to the conclusion that this type of arrow, equally common today among the Chiriguano and Chané, is the ancient form of arrow that the Chiriguano brought from their native soil to the west. I have already mentioned that the Chiriguano and Chané bows and arrows were formerly much longer. But we can also assume that these implements of the hunt and weapons of war, in accordance with their greater importance., were formerly better made than they are today.

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524 According to Nordenskiöld, only rarely does the bodoque, the bow for shooting balls, appear among the Chiriguano and Chané, and it is only used by youths and boys (196).

196. Nord. 7, p. 26.

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Macana in the Collection

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[126] I. A. 517. (Chiriguano.) Length 64 cm. (Fig. 38).

[191] The wooden macana, acquired from the Chiriguano, is provided at its upper end with a broadening distinctly delimited from the handle (cf. Fig. 38) and in that respect corresponds to the macanas that we know from various Chaco tribes, for example, the Toba, but it does not correspond to the Chiriguano macana shown in a drawing by Nordenskiöld (197).

197. Nord. 7, Fig. 9.

The latter is about the same length, but it does not show the clear broadening at the handle, its upper end being only slightly broader. According to Nordenskiöld, the Chiriguano [224] do not use these macanas except for hunting pigs (198).

198. Nord. 1, p. 183.

[126]

Slings (tamomboka) in the Collection

I. A. 508. Chiriguano. Length of the middle part of net 15 cm.
I. A. 509. " " " " " " 16 cm. (Fig. 39).)

The two slings acquired from the Chiriguano seem to be [286] exactly alike. They consist of a middle part made with the net technique with caraguata-fiber string which terminates at [284] each end with a cord. One of these two cords ends in a simple knot and the other in a small loop. These slings are like the Chané ones shown in drawings by Nordenskiöld, while the manufacture of the middle part of the Chiriguano sling shown by Nordenskiöld is different (199). The Chiriguano in contact

199. Nord. 7, Fig. 7, A.

C 411 [177] /43 cont./ The Chiriguano in contact with the Quichua /Quechua/ also use another type of sling made of wool (700).

700. Métraux 1. p. 247 and Plate VII.

C 224 [811] According to Nordenskiöld, the Chiriguano also formerly used the bola, called "[illegible]," by them, for hunting the ostrich (701).

701. Nord. 1. p. 183.

C [231] We must still mention that the Chiriguano train their dogs for hunting, especially for hunting pigs (702).

702. Nord. 2. p. 31. Métraux 1. p. 246.

Fishing

C 433 437 226 Because, as I have already mentioned, there is no opportunity for fishing in any part of the Chiriguano territory and also the large rivers which are in their territory, except for the upper Pilcomayo River, do not offer any fish other than very small ones, fishing has only secondary importance in the economy of most of the Chiriguano, although they utilize every chance they have to fish.

C 227 Among the Chiriguano in Machareti I did not see any fishing equipment outside of the small arrows with wire points, which are occasionally used for fishing. But among the Izozó CE 126 227 I acquired such a piece of equipment, which consists of a net bag that is closed at the top with two sticks of cane attached to the upper edge. (Cf. Figure 33.)

ce 227 126 /w/

Fishing Implements in the Collection

L. A. 764. Fishing implement (Izozó). Length of the sticks 73.5 cm. Width of the net 24 cm. (Fig. 39).

c L. A. 795-801. Net bags for implements like L. A. 764 (Izozó).

ce 227 Because of the flexibility of the two cane sticks attached to the upper edge of the net bag, the bag can be made to open by tension on the two sticks of cane. The opening thus made closes quickly when the tension ends. c 229 Such an implement of the Chiriguano of the Parapití is shown in a drawing by Nordenskiöld (203).

203. Nord. 1, Fig. 91.

c ce 226 Among the other methods of fishing I shall mention, following v. Rosen and v. Nordenskiöld, the following: First, fishing by means of a gourd placed on the bottom of the river in the shade of a branch which is attached to the bottom near it. When the fish attracted by acidified maize have gathered inside the gourd, its opening is quickly closed with the hand (204). In addition the Indians of the Itiyuru River make

204. Nord. 1, p. 194 and Fig. 90.

oblong pools by building dikes (205), and those of the upper

205. Nord. 1, p. 185.

Pilcomayo River build large stone dikes for fishing (206). It

206. Nord. 2, pp. 43 and 44.

is said that on this river they use the bark of a particular tree to poison the water (207). They also fish with hooks, which

207. Nord. 2, p. 40.

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/44 cont./ The also fish with hooks, which today they obtain from the whites. But it may be that the hook is an implement of their ancient culture (208). In addition, they fish by means of deep nets like those of the neighboring Chaco tribes, such as the Chorote, the Churupí, the Matako, and the Toba (209). They also fish with arrows and formerly with spears with two points. On his trip in 1901-1902, v. Rosen acquired one specimen of these spears from the Chiriguano, which he has described and shown in a sketch (210).

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Among the Chiriguano and Chané arrows specifically for fishing, we must distinguish two different kinds, one for larger fish, with two dentate wooden points (211), and the other for small fish, provided at the upper end of the shaft with a large number of cactus spines (212).

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208. Nord. 2, p. 44.

209. Nord. 2, p. 43. Métraux I, p. 350, Fig. 80.

210. V. Rosen, op. cit., p. 214 and Fig. 216.

211. Nord. 2, Fig. 15b. V. Rosen, op. cit., Figs. 213 and 214.

212. Nord. 2, Fig. 15a.

/44 cont./

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Acquisition of Raw Material of Inorganic Origin

316 648 [167] Because it was the rich treasures of the Incas and of the bordering lands, especially their wealth in gold and silver, which stimulated the Chiriguano to immigrate into the regions bordering this empire, the question is posed as to whether the Chiriguano took part in the exploitation of the land for that purpose. We know of their battles with Guacane and his brother Condori because of the rich mines of Maypurún, and we know that the Chiriguano possessed these mines for some time and that on this occasion they took great quantities of gold and silver. But in those battles they captured Condori in person, and he was the owner of the mines, and they kept him no doubt to work the mines for them. Furthermore, their power over the region of the mines lasted a short time, because they were thrown back by the cacique Grigota /45/ as far as the eastern spurs of the Andes. We have no information that in their new land they had any opportunity to extract gold and silver from the earth, or that they themselves ever worked these metals
301 in any major way. Today they have their silver ornaments
177 made by the mestizos or the whites of their region, except
439 for the single fact that the Chiriguano sometimes made their tembetás of tin.

316 Through the description of their tembetás and necklaces, we know that the Chiriguano have some semiprecious stones. As Nordenskiöld relates (213), they, according to their own statements, find the turquoise and chrysocolla beads on the ground where there had been houses or where ancient tombs are located.

263 317 [439] While salt today is obtained from the whites, it was formerly extracted from the land, either in the form of rock salt, which they got from mines near San Luis, or in the form of salt water which they obtained by treating with water

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213. Nord. 1, p. 209.

C 317 263 /45 cont./
the earth of the salt licks called "yukiu" (214).

214. Nord. 1, p. 189. See Métraux 1, pp. 359 and 360.

C Ce 372

Making Fire

Native implements to make fire are little used today by the Chiriguano and Chané. At home fire can generally be obtained from some other piece of burning wood, and for C Ce [178] [276] other occasions they commonly provide themselves with modern matches. Moreover, as I have said, the Chiriguano and Chané are not great smokers. One fire-making tool which is still found among them is the strike-a-light. The specimen I acquired from the Chiriguano is different from the strike-a-light of the Chaco tribes in that the tinder consists of a quite thick cotton wick. According to Métraux (215), C Ce [415] [237] there is also found among them the common form of strike-a-light in which the tinder consists of the fuzz of the fruit of the palo borracho (Chorisia insignis) kept in a container made of a a cow horn or armadillo tail.

215. Métraux 1, p. 253.

C Ce 372 126

Fire-making Implements in the Collection

I. A. 516. (Fig. 40.)

a. Bag woven of cotton thread as a container for the implements.

b. Wick of cotton thread.

c. Receptacle for the lighted end of the wick, made of the nest of a species of wasp.

d. Piece of a modern metal file.

e. Pieces of flint.

C Ce 372 [415] [237]

/45 cont./

A small nest of a species of wasp serves as a container for the lighted end of the wick. The fire is produced by striking a flint with a piece of a modern metal file.

Ce 372 773

In a Chané legend recorded by Nordenskiöld (216), it turns out that the Chané formerly produced fire by rubbing one little stick upon another. According to this legend, two boys and a girl received fire from an old man, who is the sun. The bird Huapi advised them to take good care of the fire. Should it once go out, they would have to make new fire with the "tata," which is the /46/ implement for making fire by rubbing two sticks together. The cacique of the Izozó, when I asked him about this implement, also knew it well and called it by its name in Guaraní. Nordenskiöld once saw a Chiriguano who had no matches with him make a fire with such an implement (217).

Ce 372

C 372

Ceramics

C Ce 445 114

The great development of ceramics among the Chiriguano and Chané, the very great variety of forms of their diverse vessels and their ornamentation have long excited the interest of ethnologists. Nordenskiöld, who gives the number of variations in the forms of the vessels of these Indians as more than 50, has published a great many of them in outline and also presents the ornamentation of many of them in sketches (218). Eric v. Rosen has also shown numerous

216. Nord. 1, p. 252.

217. Nord. 1, p. 50. Cf. Métraux 1, p. 354.

218. Nord. 1, Figs. 77; 78; 82; 92; 113; 117; 121, and Plate 19. Nord. 2, Figs. 38-48.

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/46 cont./ Eric V. Rosen has also shown numerous Chiriguano vessels in drawings in his work already cited (219).

219. V. Rosen. Figs. 218-225.

Métraux describes and shows by drawings a great number of Chiriguano baked clay vessels (220).

220. Métraux 1, pp. 370-374; pp. 382-428; Plates 16-19 and 24-60.

A publication by Felix F. Outes deals particularly with Chiriguano ceramics (221).

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[113]

221. Felix F. Outes: La ceramica Chiriguana /Chiriguano Ceramics/." From the Revista del Museo de la Plata, Vol. XVI (second series, Vol. III), Buenos Aires, 1909, pp. 121-136.

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Because formerly in the museum of the Sociedad Cientifica del Paraguay we had only four baked clay vessels and a piece of a handle from the Chiriguano, which Doña Maria F. de Casati collected among them and presented to the museum, I had a special interest in filling this gap. With some effort I managed to acquire from the Izozó in Toledo 41 Chiriguano vessels, and from the Chiriguano in Machareti, 55 of them, and with rather more effort I managed to bring them back whole and with their designs in good condition through the long trip to Asunción.

These baked clay vessels collected by me also show great variation in their form and ornamentation. But these diverse variations can be reduced to several groups, according to the purpose for which they were intended.

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The Chiriguano and Chané baked clay vessels may serve very different ends:

1. To cook foods and liquids.
2. To fry /fritar, literally "to frit"/ foods.
3. To steam maize meal.
4. To carry and keep water.

/46 cont./

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Ce
415

5. As a container for chicha.
6. To serve chicha.
7. As a drinking container, especially for drinking chicha.
8. To store food.
9. To store anything at all.
10. As plates for eating meals.
11. As a base for the spindle in spinning.
12. As funerary urns.

/47/

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1. Baked Clay Vessels for Cooking Foods and Liquids (yapèpo), from the Collection

I. A. 412	Chirig.	Ht.	12 cm.	Max. Dia.	14 cm.	Aperture	12 cm.
						"	(Fig. 48)
I. A. 413	"	"	26 cm.	" "	23.5 cm.		18 cm.
							(Fig. 46)
I. A. 414	"	"	24 cm.	" "	23 cm.	"	17 cm.
							(Fig. 44)
I. A. 415	"	"	20 cm.	" "	19.5 cm.	"	14.5 cm.
I. A. 416	"	"	30 cm.	" "	26 cm.	"	20 cm.
I. A. 417	"	"	22 cm.	" "	22.5 cm.	"	19 cm.
I. A. 418	"	"	23.5 cm.	" "	24 cm.	"	20 cm.
							(Fig. 45)
I. A. 419	"	"	22 cm.	" "	20 cm.	"	16 cm.
							(Fig. 47)
I. A. 420	"	"	28.5 cm.	" "	28 cm.	"	20 cm.
I. A. 421	"	"	20 cm.	" "	22.5 cm.	"	19 cm.

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The form of these ten Chiriguano vessels intended for cooking foods or liquids is essentially the same. Only the vessel I. A. 412, with a height of 12 cm., is substantially smaller than the other vessels, whose height varies between 20 and 30 cm. Only in the case of the former small vessel is the diameter of the aperture at the top equal to the height of the vessel, while for all the other vessels the diameter of the aperture at the top is less than the height, and in some cases this is a difference of up to 10 centimeters.

/47 cont./

C 415 531 difference of up to 10 centimeters. The neck is clearly distinguished from the globular belly of these vessels by a border on all of these vessels provided with sunken ornamentation. Also the flat part of the bottom is clearly distinguished from the wall by a border. The surface of the belly of the vessels has incised lines produced by rubbing the surface, when still moist, with a maize cob. Only the little vessel I. A. 412 has its entire surface covered with sunken ornamentation.

C 415 All of these vessels intended for cooking are fitted with two handles in a vertical position, attached to the upper rim of the pot and coming down to the lower part of the neck. The form of these handles shows some variation which I shall deal with in the chapter on art.

Vessel Intended for Cooking Maize Meal for the Preparation of Chicha, from the Collection

C [126] I. A. 399 (Chirig.) Ht. 52cm. Max. dia. 42cm. Aperture [illegible] cm. (Fig. 50).

Large baked clay vessels, which in many cases are still much larger than the specimen brought back by me from the Chiriguano, are used for cooking the maize meal used in the preparation of chicha. As shown in Fig. 50, this kind of vessel is different from the ordinary vessels intended for cooking only by not having handles. The wall of the belly is clearly

C [531] distinguished from the neck and from the flat bottom. The neck of these vessels also has sunken ornamentation. The vessel shown in Figure 50 is relatively high in comparison with its maximum diameter and with the diameter of the

Ce [415] aperture at the top. The vessels for cooking chicha native to the Chané on the Itiyuru and shown in drawings by Nordenskiöld have, in comparison with their maximum diameter and the diameter of their aperture, a much smaller aperture /sic/, (222).

222. Nord. 1, Fig. 83.

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2. Vessels Intended for Frying Maize, from the Collection

I. A. 400 (Chirig.). Ht. 14 cm. Max. dia. 33 cm. (Fig. 53a).
I. A. 592 (Izozó). " 10 cm. " " 21.5 cm.

These two vessels are very similar to each other. Both have two small handles on the rim. They differ from one another only in that the division between the flat base and the wall of the Izozó pot is more marked than on the Chiriguano vessel. A vessel very similar to the two described above and from the Chané on the Itiyuru River is shown in a drawing by Erland Nordenskiöld (223). Because Nordenskiöld states that this vessel was intended for frying /fritar/ maize, I also consider the two similar vessels in the collection to have been used for that end.

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3. Vessel for Steaming Maize Meal, from the Collection

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[126] I. A. 422 (Chiriguano). Height 12.5 cm. Max. dia. 23 cm. (Fig. 52.)

This vessel has some round holes in the bottom, one of which is in the center and the rest in two concentric circles around the central one. According to Nordenskiöld (224), *who shows in a drawing a vessel very similar to this one, these* plates with holes in the bottom are used for steaming the maize meal with which they prepare a dish that they call in Chiriguano "huintimimimo." To do this, they put the plate with the maize meal on the aperture at the top of a pot in which they boil water (225).

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223. Nord. 2, p. 53 and Fig. 43, N. 23.

224. Nord. 2, Fig. 43, N. 22.

225. See Métraux I, p. 357 and (Plate 13) N. 1 and 2.

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/48 cont./

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4. Vessels for Carrying or Storing Water, from the Collection

I, A. 392	Chirig.	Ht.	25 cm.	Max.	Dia.	17.7 cm.	Apert.	4 cm.
								(Fig. 84)
I. A. 393	"	"	32 cm.	"	"	29.5 cm.	"	9 cm.
I. A. 395	"	"	32 cm.	"	"	31.5 cm.	"	13.5 cm.
I. A. 396	"	"	32 cm.	"	"	30 cm.	"	14.5 cm.
								(Fig. 55)
I. A. 589	Izozó	"	34 cm.	"	"	23.7 cm.	"	6.5 cm.
I. A. 606	"	"	24.5 cm.	"	"	18.5 cm.	"	3.5 cm.
								(Fig. 56a)
I. A. 607	"	"	13.5 cm.	"	"	14.5 cm.	"	13 cm.
I. A. 608	"	"	19.5 cm.	"	"	19.2 cm.	"	3.5 cm.
								(Fig. 83b)
I. A. 617	"	"	16 cm.	"	"	17 cm.	"	11.5 cm.
								(Fig. 56b)
I. A. 621	"	"	28.5 cm.	"	"	18.4 cm.	"	3.5 cm.
								(Fig. 83a)
I. A. 761	"	"	40.5 cm.	"	"	27.5 cm.	"	7 cm.
								(Fig. 54)
I. A. 762	"	"	44 cm.	"	"	34.5 cm.	"	7.9 cm.
I. A. 763	"	"	48 cm.	"	"	35 cm.	"	7.7 cm.

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Ce
[531]

The vessels mentioned in the above, in contrast with the cooking pots, have a smooth surface. Also they are not painted. This leads us to assume that they are intended for common use rather than for festive occasions, and we must consider them primarily as vessels for water, which naturally does not preclude their being used on occasion for chicha. Plates XIV-XVII appear here.

Chane SF8
Izozo

Plate XIV

C
372
415

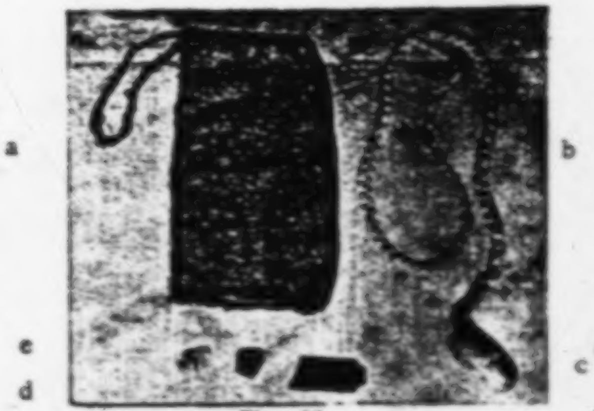


Fig. 40

C
[237]
→

C
415
286
←

C2
415
284
→

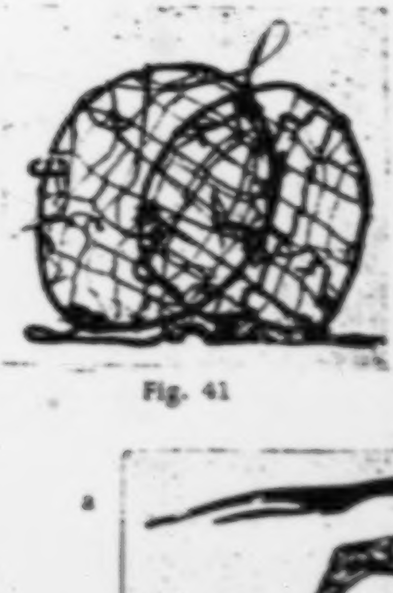


Fig. 41

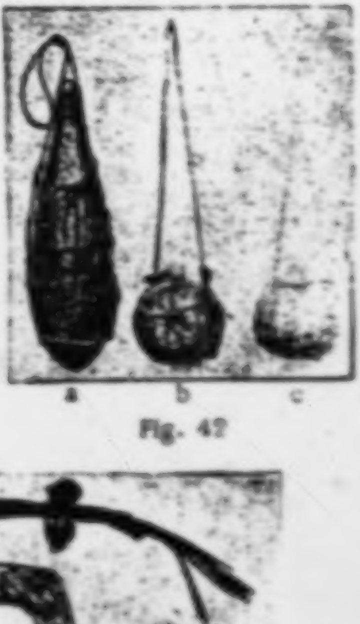


Fig. 42

C
285
796

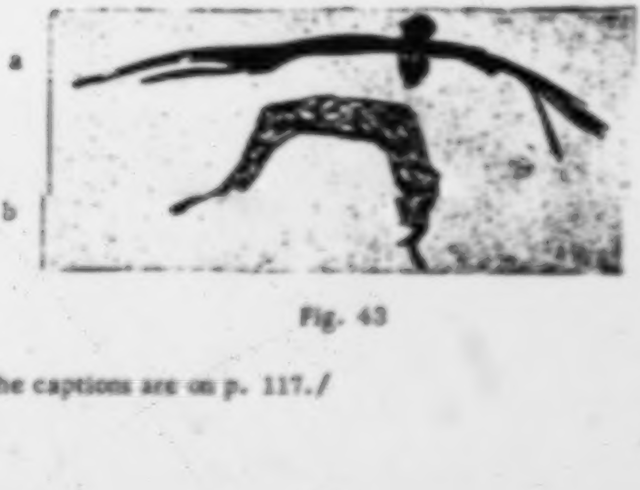


Fig. 43

/The captions are on p. 117./

Plate XV

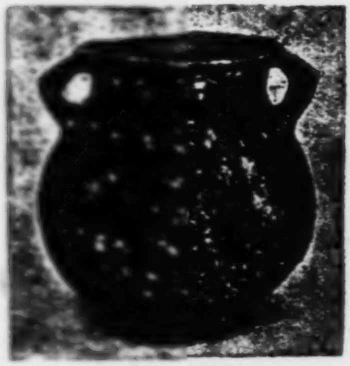


Fig 44

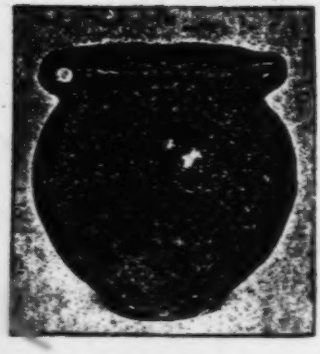


Fig. 46

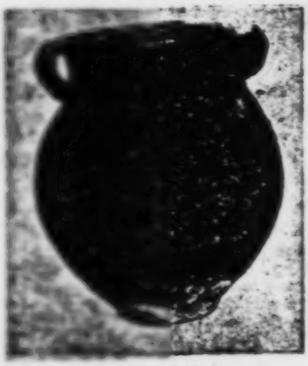


Fig. 45

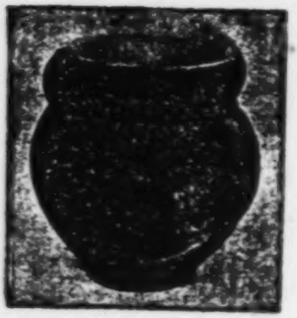


Fig. 48

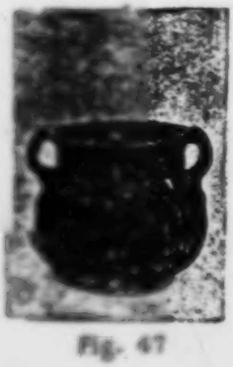


Fig. 47

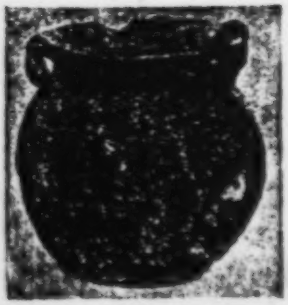


Fig. 49

/The captions are on p. 117./

Chane SF8
Izozo

/Captions for Plates XIV and XV./

C 372 415 Fig. 40. (I. A. 516) Implements for making fire (Chiriguano):
a (I. A. 516a), bag as receptacle for the implements, length 16 cm., width 8.5 cm.;
b (I. A. 516b), cotton wick, length 62 cm.;
C [237] c (I. A. 516c), receptacle for the end of the wick, nest of a species of wasp, length 4.2 cm.;
d (I. A. 516d), piece of a metal file, length 4 cm.
e, flints.

C 415 285 Fig. 41. (I. A. 583) A pair of hoops for storing goods (Chiriguano), diameter 43 cm.

Ce 415 Fig. 42. Calabashes for carrying water (Izozó):
a (I. A. 661), height 49.5 cm.;
b (I. A. 662), height 16 cm.;
Ce [824] c (I. A. 665), height 17.5 cm., made out of the fruit of the tree Crescentia Cuyeta /Crescentia cujete/.

C 285 796 Fig. 43. Objects plaited out of palm leaves, used in religious festivities (Chiriguano):
a (I. A. 1439), length 72 cm.;
b (I. A. 1440), length 37 cm.

C 415 Plate XV. Baked clay vessels for cooking foods (Chiriguano).

Fig. 44 (I. A. 414). -- Height 24 cm.
Fig. 45 (I. A. 418). -- Height 23.5 cm.
Fig. 46 (I. A. 413). -- Height 26 cm.
Fig. 47 (I. A. 419). -- Height 22 cm.
Fig. 48 (I. A. 412). -- Height 12 cm.
Fig. 49 (I. A. 417). -- Height 22 cm.

Plate XVI

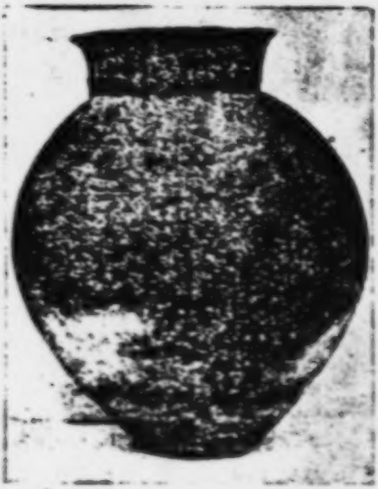


Fig. 50

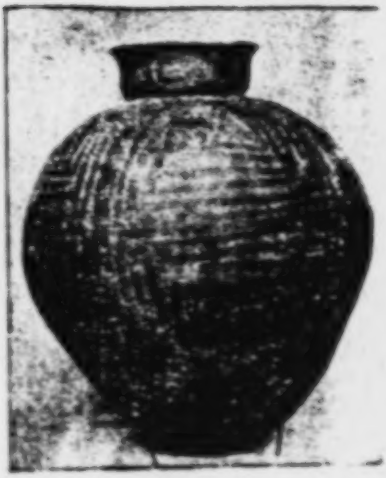


Fig. 51

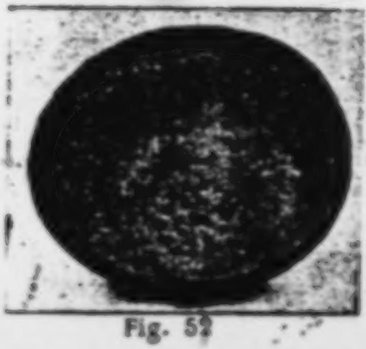
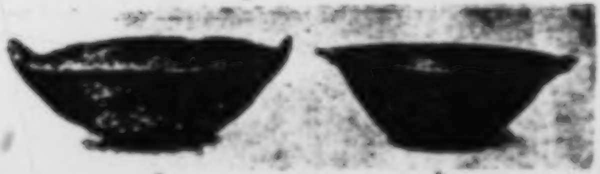


Fig. 52



a b

Fig. 53

/The captions are on p. 120./

Chane SF8
Izozo

Plate XVII

Ce
415
286
482
←

c
415
→

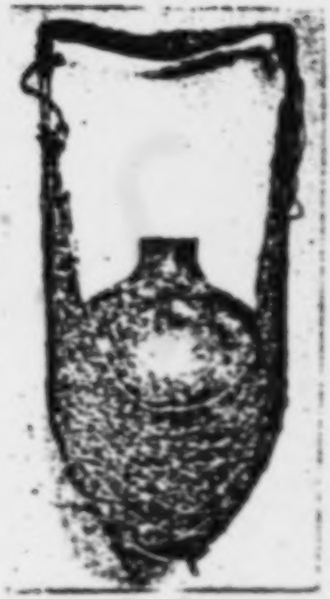


Fig. 5.

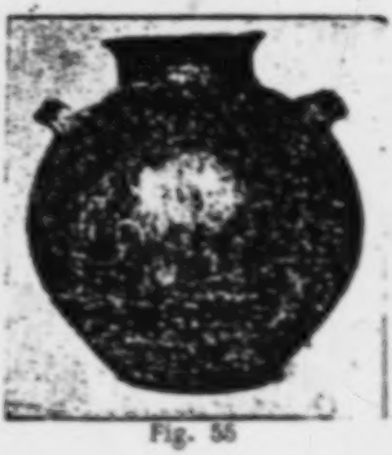
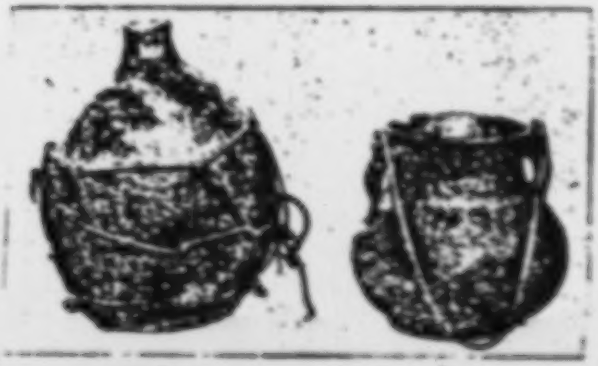


Fig. 55

Ce
415
284
←

Ce
415
→



a b

Fig. 5

/The captions are on p. 176./

8: Schmidt--120 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
I2020

/Captions for Plates XVI and XVII./

C
415

Fig. 50 (I. A. 399). -- Vessel for cooking maize meal for the preparation of chicha (Chiriguano), height 32 cm.

Fig. 51 (I. A. 397). -- Vessel for storing chicha (Chiriguano), height 62 cm.

Fig. 52 (I. A. 422). -- Baked clay dish with holes in the bottom for steaming maize meal (Chiriguano), height 12.5 cm.

Fig. 53: a (I. A. 400), vessel for frying /fritar/ maize (Chiriguano), height 14 cm.;
b (I. A. 401), vessel for storing food (Chiriguano), height 11.5 cm.

Plate XVII. Baked clay vessels.

CE
415
296
432

Fig. 54 (I. A. 761). -- Vessel with net, for carrying water (Izozô), height 40.5 cm.

C
415

Fig. 55 (I. A. 296). -- Vessel for carrying or storing water (Chiriguano), height 32 cm.

CE
415
294

Fig. 56: a (I. A. 606), vessel with an interlacing of thread (Izozô), height 26.5 cm.;
b (I. A. 617), vessel with a leather strap (Izozô), height 16 cm.

CE
415

/49/

C
415 Among the four Chiriguano vessels of this kind, there are three different types. Two of them have aglobular form of the belly and the well-marked distinction f the neck and of the flat bottom, like the cooking vessels, but the surface of the neck too, is smooth, and the handles ae different. These, in contrast to the others, are placed in a paition horizontal to the wall of the belly of the vessel, slightlyabove the maximum diameter.

The other two Chiriguano vessels of this kind do not have handles, and their aperture at the top, in comparison to the height, is relatively small. Vessel L.A. 393 has a round bottom, with the result that it cannot stand upright on a flat surface. Vessel L.A. 395, besides its very small aperture, has a cylindrical neck, narrow and relatively high, which can easily be encompassed by the hand.

Ce
415 The Izozó vessels for water have an aperture at the top that is relatively quite small. Three of then have a round bottom and hence cannot stand on a flat surface, wille the bottoms of the rest are flat. The necks of all of these vessels are very little distinguished and that of vessel L.A. 608 is very short.
Ce
[531] The surface is smooth and unpainted. Vessels L.A. 761, 762, and 763 are inside a net, which indicates that they are special vessels for carrying water. Vessel L.A. 606 is clearly a vessel for the same purpose on account of an interlacing of thread on its lower part. None of these Izozó water vessels have handles except for two small vessels which are also lifferent in form from the others. They have two handles which come down vertically from the upper rim. They also differ from the other vessels in their relatively large aperture at te top. Vessel L.A. 617 has a leather strap attached to its two handles.

8: Schmidt--122 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
I2020

C
415
126

5. Vessels Used as Chicha Receptacles, from the Collection

I.A. 355 Chirig. (126). No handles. Ht. 15.5 cm. Max. dia. 20.5 cm. Apert. 15 cm.

126. Donated by D. María F. de Casati.

I.A. 368	Chirig.	No handles.	Ht.	27 cm.	Max.	dia.	34 cm.	Apert.	30 cm.	(Fig. 59)
I.A. 369	"	" "	"	22.5 "	"	"	42 "	"	42 "	(Fig. 60)
I.A. 370	"	" "	"	26 "	"	"	30.5 "	"	27 "	(Fig. 58)
I.A. 372	"	Two handles	"	20 "	"	"	24.5 "	"	21 "	
I.A. 373	"	" "	"	15 "	"	"	22.5 "	"	20 "	(Fig. 75a)
I.A. 374	"	" "	"	16 "	"	"	18 "	"	13 "	(Fig. 75b)
I.A. 375	"	No handles	"	13 "	"	"	28 "	"	28 "	(Fig. 67)
I.A. 376	"	2 handles, 1 broken		24 "	"	"	27 "	"	21 "	(Fig. 62)
I.A. 377	"	No handles	Ht.	26 "	"	"	30.3 "	"	24 "	(Fig. 57)
I.A. 378	"	Two handles	"	21.5 "	"	"	22.8 "	"	17 "	(Fig. 63)
I.A. 381	"	No handles	"	14 "	"	"	16.5 "	"	18 "	(Fig. 71)
I.A. 383	"	Two handles	"	12 "	"	"	15.7 "	"	13 "	(Fig. 74b)
I.A. 384	"	" "	"	13.5 "	"	"	16 "	"	11 "	
I.A. 386	"	" "	"	16 "	"	"	19.1 "	"	13 "	(Fig. 73b)
I.A. 387	"	" "	"	16 "	"	"	16.8 "	"	13 "	(Fig. 73a)
I.A. 397	"	No handles	"	62 "	"	"	53 "	"	24 "	(Fig. 51)
I.A. 398	"	" "	"	52 "	"	"	45.2 "	"	16.5 "	
I.A. 407	"	" "	"	9 "	"	"	17 "	"	17 "	(Fig. 77b)
I.A. 408	"	" "	"	8 "	"	"	16.5 "	"	17.5 "	(Fig. 77a)
I.A. 409	"	" "	"	7.2 "	"	"	13 "	"	13 "	

1901

CC
415
126

I.A. 593	Isosó	" "	"	14 "	"	"	18.5 "	"	18.5 "	
I.A. 596	"	Two handles	"	16 "	"	"	16.2 "	"	11.5 "	(Fig. 68a)
I.A. 598	"	" "	"	13.2 "	"	"	23 "	"	23 "	
I.A. 600	"	No handles	"	13 "	"	"	23.7 "	"	23.7 "	(Fig. 76a)
I.A. 601	"	" "	"	22.5 "	"	"	26.7 "	"	23.5 "	(Fig. 69b)
I.A. 604	"	" "	"	29 "	"	"	27.4 "	"	26 "	(Fig. 61)
I.A. 605	"	" "	"	19.2 "	"	"	22.5 "	"	21.5 "	(Fig. 69a)
I.A. 652	"	" "	"	25.5 "	"	"	29 "	"	15.5 "	(Fig. 68b)

Chané SF8
Izozo

/50 cont./

C
Ce
415

Among the vessels used as receptacles for chicha, those of the Chiriguano generally show different forms from those of the Izozó. The form of these Chiriguano vessels, especially that of the large ones, generally has a globular belly (cf. the figures 368 /see Fig. 55, p.129/, 370 /see Fig. 56, p.129/, and 377 /see Fig. 57, p.129/), while on the vessels of the Izozó the lower part of the belly becomes larger going upward and is commonly distinguished by a border on the upper part which becomes smaller going upward. (Cf. Figs. 61 /see p.129/, 68, and 69 /see p.132/.) The surface of all of these vessels is smooth and, with the exception of a few Izozó vessels, have designs on them. Only the large Chiriguano vessel I. A. 397 has a round bottom; all the other vessels have flat bottoms marked off from the belly by a border.

C
Ce
[531]

Among these Chiriguano and Izozó vessels there are some which have their maximum diameter at the aperture on top (cf. Figs. 60 /see p.129/ and 67 /see p.130/), which gives them the shape of a large dish. Vessels I. A. 397 and 398 differ from the rest by their height.

Of these Chiriguano pots, nine have handles and 12 do not. Of the eight Izozó pots, only two have handles. (Cf. Fig. 68a /see p.132/.) Most of these Izozó pots have the peculiarity that the necks, well distinguished by a border, become wider toward the upper rim. (Cf. Figs. 61 /see p.129/ and 69 a and b /see p.132/.)

In Schmidt--174 E-5 (1931) 1938 SF10 Chiriguano SF11
Chane SF8
I2#20

/16 cont./

C
415
126

6. Vessels Intended for Serving *Chicha*, from the Collection

I. A. 367 (778)	Chir.	Ht. 18.3 cm.	Max. dia. 15.3 cm.	Apert. 10 cm.	(Fig. 61)
I. A. 368 (778)	Chir.	Ht. 14.5 cm.	Max. dia. 14.7 cm.	Apert. 8 cm.	
I. A. 369 (778)	"	Ht. 18.5 cm.	Max. dia. 16.7 cm.	" 5.7 cm.	
I. A. 371	"	" 20	" " " 21.3	" " 8.5 cm.	
I. A. 379	"	" 18.5	" " " 18	" " 6 cm.	
I. A. 380	"	" 20	" " " 18.3	" " 8.5 cm.	(Fig. 82a)
I. A. 387	"	" 18	" " " 14	" " 7 cm.	(Fig. 82b)
I. A. 385	"	" 20.5	" " " 21.7	" " 9 cm.	
I. A. 402	"	" 22	" " " 15.5	" " 12 cm.	
I. A. 403	"	" 17.5	" " " 14.5	" " 14 cm.	(Fig. 84)
I. A. 404	"	" 20	" " " 21.5	" " 9 cm.	(Fig. 74a)
I. A. 405	"	" 19	" " " 19	" " 7 cm.	
I. A. 587	Izozó	" 18	" " " 16.7	" " 12 cm.	
I. A. 588	"	" 14	" " " 14.3	" " 12 cm.	
I. A. 590	"	" 13	" " " 12.8	" " 12.5 cm.	
I. A. 609	"	" 14	" " " 12.5	" " 12 cm.	
I. A. 673	"	" 20.5	" " " 18	" " 12.5 cm.	(Fig. 67)

Ce
415
126

/Fn. 736, which appears on p. 177, reads:
Donated by D. María F. de Casati./

C
Ce
415
S27
273

The Chiriguano and Chané use vessels like those mentioned above in the *chicha* festivities, taking the *chicha* from the large pots by means of them and filling the *cuyas* /gourd vessels/ or baked clay cups that they pass among those present at the fiesta.

/33/

C
Ce
415

Among these vessels we must distinguish two different principal types. The vessels of the first type have the globular form of the belly, a narrowed part at the neck, a relatively small aperture, a flat bottom, and a vertical handle placed on the upper rim and coming down to the upper part of the belly. See Figs. 74 /see p.130/ and 82 /see p.144/. The second type, whose form was no doubt received from the whites, differs from the first primarily in that its aperture has a spout like modern vessels: See Figs. 64 and 65 /see p.130/. Vessels of this type also have a handle that, placed at the upper rim, comes down to the upper part of the belly.

Ce
[197]

C
415

In addition to these vessels I found one among the Chiriguano which corresponds in form to vessel I.A. 382, already mentioned among the vessels for carrying water. Like that one, it has a narrow, cylindrical neck that can easily be encompassed by the hand and has no handle. Because its surface has designs, I have included it among the vessels intended for serving chicha.

Ce
415
126

7. Vessels Intended for Drinking Liquids, from the Collection

I.A. 607	Izozó	Ht.	10 cm.	Max.	dia.	12.5 cm.	Apert.	10 cm. (Fig. 70b)
I.A. 608	"	"	6 cm.	"	"	9 cm.	"	6 cm.
I.A. 610	"	"	8 cm.	"	"	10.5 cm.	"	8.5 cm.
I.A. 611	"	"	9 cm.	"	"	11.5 cm.	"	8 cm.

C
Ce
415

Among the vessels collected among the Izozó there are four in the shape of cups. From the types of vessels shown in *drawings by Nordenskiöld (227), it is deduced that similar cups*

Ce
[197]

are used by the Chané on the Itiyuro and by the Chiriguano. We must assume that the form of these cups is the result of the influence of European styles. Those vessels have a globular

227. Nord. 2, Fig. 40, N. 26; Fig. 42, N. 22 and 23; Fig. 44, N. 19-21.

Chané SF8
I2020

Ce
415
/51 cont./ These vessels have a globular form and are provided with a handle. The bottom of three of them is clearly distinct from the belly, forming a foot.

Ce
[531]
Two of them have designs on the surface; the others are without designs.

C
415
[124]

8. Vessels Used as Receptacles for Food, from the Collection

I. A. 394. Chiriguano. Height 17.5 cm. Aperture 44 cm.
I. A. 401. " " 11.5 cm. " 30 cm.

C
[241]
Two of the baked clay dishes that I obtained from the Chiriguano in Machareti seem to me to be too big to be considered as dishes for eating, because Nordenskiöld states that (228) the Chiriguano do not eat from a common dish, but rather each one has his own separate dish. We can assume that these are vessels used as food containers or serving dishes for food before it is placed on the individual dishes.

C
[531]
The two dishes are without designs. The flat bottom is well distinguished from the wall, which widens upward. The dish I. A. 401 has a rather wide rim which has two handles. Cf. Fig. 53b /see p. 118/.

C
Ce
415
[171]

9. Vessels Used for Storing Objects

In contrast to the other Indians, the Chiriguano and Chané use vessels for keeping anything of value. I did not receive from the Indians any indication /52/ that any of the vessels I brought from them belonged particularly to this type. Therefore I refer here to a vessel shown in a drawing by Nordenskiöld with the caption "For keeping knicknacks in" /cited in English/ (229).

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228. Nord. 1, p. 190.

229. Nord. 2, p. 158 and Fig. 45, N. 19.

Chane SF8
Izozo

/52 cont./

C
Ce
415

Nordenskiöld says in another place that the mistress of the house keeps all the family's valuable things, such as clothing, ornaments, silver plates, turquoise or chrysocolla necklaces, and many other things, in these vessels (230).

230. Nord. 1, p. 179.

C
415
126

10. Dishes for Eating (nyá e), from the Collection

Ce
415
126

I. A. 388	Chirig.	Height	6.5 cm.	Aperture	21 cm.	(Fig. 79a)
I. A. 389	"	"	8 cm.	"	23.5 cm.	(Fig. 79b)
I. A. 390	"	"	5.2 cm.	"	15 cm.	
I. A. 391	"	"	4 cm.	"	13 cm.	
I. A. 406	"	"	9 cm.	"	25 cm.	(Fig. 78a)
I. A. 586	Izozó	"	13 cm.	"	25.5 cm.	(Fig. 76b)
I. A. 591	"	"	9.5 cm.	"	16.5 cm.	
I. A. 594	"	"	9.5 cm.	"	21 cm.	
I. A. 595	"	"	9 cm.	"	20 cm.	(Fig. 80a)
I. A. 598	"	"	13.2 cm.	"	25 cm.	
I. A. 612	"	"	9.5 cm.	"	19 cm.	
I. A. 613	"	"	8 cm.	"	21 cm.	(Fig. 80c)
I. A. 614	"	"	9 cm.	"	22 cm.	
I. A. 615	"	"	10.5 cm.	"	27.5 cm.	
I. A. 616	"	"	10.5 cm.	"	22 cm.	
I. A. 618	"	"	10 cm.	"	18.5 cm.	
I. A. 620	"	"	15.5 cm.	"	15 cm.	

C
Ce
415
1264
[531

Because every Chiriguano and Chané as already mentioned, eats from his own dish, such baked clay dishes are found in great number in the houses of these Indians. Many of them that are intended for ordinary use do not have designs, while others, used on the occasion of fiestas, have designs on their outer surface or on the upper rim of the interior surface, or are provided with small additions.

8: Schmidt--128 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
Izozo

/52 cont./

C
Ce
415
All of these dishes have a round belly, becoming somewhat larger going upward. The differences in form are limited only to variations of the upper rim and the bottom. The wall of some of these dishes ends at the top without forming a special rim. Cf. Fig. 76b /see p.143/. Other dishes have a rim in a horizontal or oblique direction. The upper rim of dish I. A. 406 (cf. Fig. 78a /see p.143/) has small continuous incising. The flat bottom of most Izozó dishes is clearly distinct from the wall, forming a foot. This distinction of the bottom is lacking in most Chiriguano dishes, one of which has an almost round bottom.

C
Cc
[531]

Ce
415
[126]

11. Vessel used in Spinning, from the Collection

I. A. 619. (Izozó). Height 5 cm. Aperture 12 cm. (Fig. 81b.)

Ce
415
283

Nordenskiöld (231) shows in drawings two small dishes of

231. Nord. II. p. 165 and Fig. 44, No. 23 and 24.

the Chané of the Parapití River, which, according to his statement, are used in the spinning technique /Plates XVIII-XXI appear here/ /53/ as a base for whirling the spindle on its bottom. The small dish I. A. 619, which I obtained from the Izozó and which differs from the other dishes in the collection principally because of its thick and heavy bottom, is similar, with regard to its form and its dimensions, to those two dishes published by Nordenskiöld, and thus I assume it to be for the same purpose, although I did not obtain any indication from the Indians regarding that.

Ce
[174]

Chane SF8
12020

Plate XVIII

C
415
531

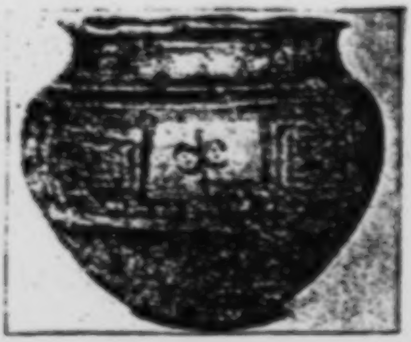

Fig. 57

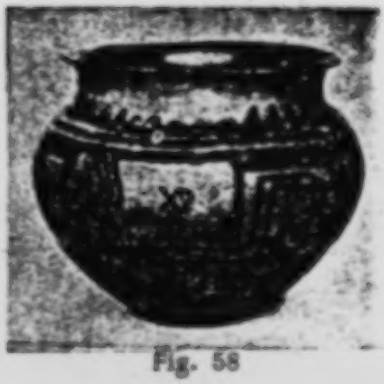

Fig. 58

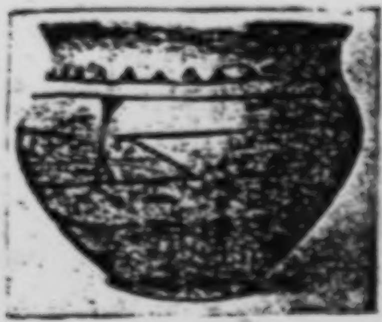

Fig. 59

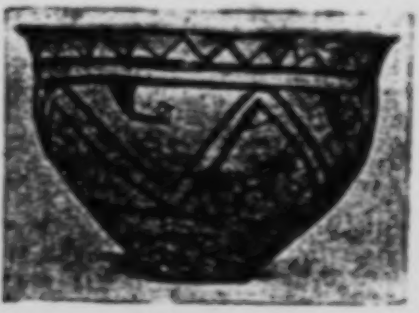

Fig. 60

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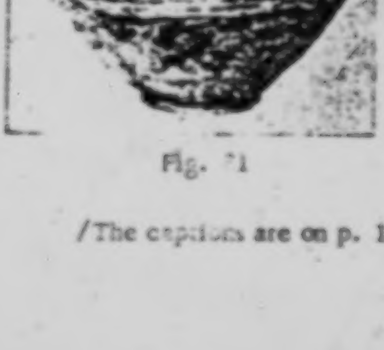

Fig. 61

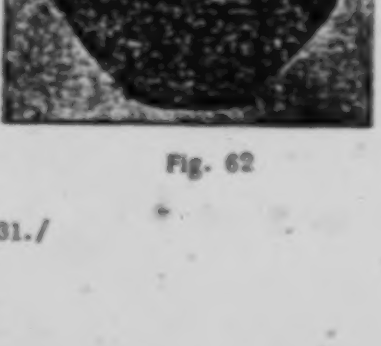

Fig. 62

/The captions are on p. 131./

8: Schmidt--130 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
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Plate XIX

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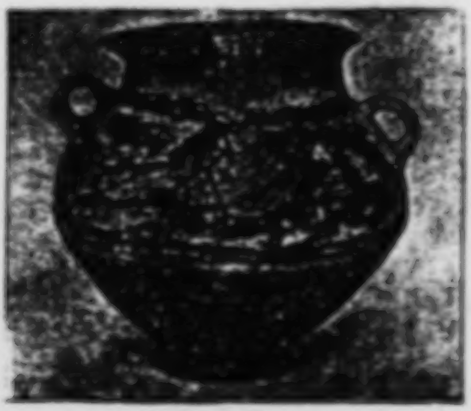

Fig. 63

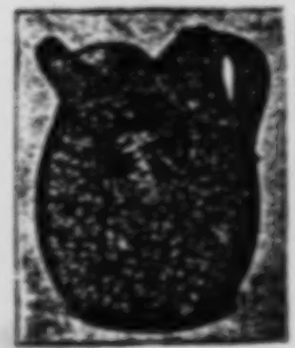

Fig. 64

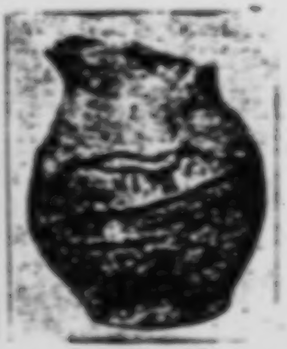

Fig. 65

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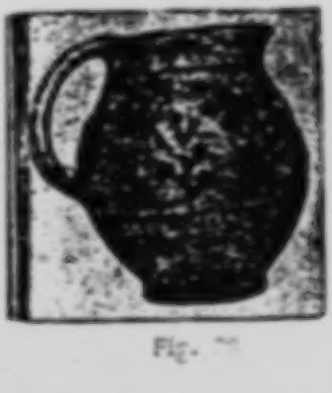

Fig. [illegible]

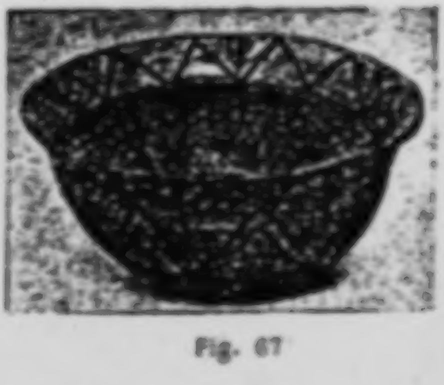

Fig. 67

/The captions appear on p. 131./

St Schmidt--131 E-5 (1935) 1938 SF10 Chiriguano SF10

Chane SF 8
Izozo

/Captions for Plates XVIII and XIX./

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531 Plate XVIII. Baked clay vessels for chicha.

Fig. 57. (I. A. 377) (Chiriguano) Height 26 cm.
Fig. 58. (I. A. 370) (Chiriguano) Height 26 cm.
Fig. 59. (I. A. 368) (Chiriguano) Height 27 cm.
Fig. 60. (I. A. 369) (Chiriguano) Height 27.5 cm.
Ce [415] [531] Fig. 61. (I. A. 604) (Izozó) Height 29 cm.
Fig. 62. (I. A. 376) (Chiriguano) Height 24 cm.

Plate XIX. Baked clay vessels.

Fig. 63. (I. A. 378) Baked clay vessel for chicha (Chiriguano). Height 21.5 cm. Cf. Fig. 146 /see p. /.
Fig. 64. (I. A. 403) Baked clay vessel for serving chicha (Chiriguano). Height 17.5 cm. Cf. Fig. 145 /see p. /.
Fig. 65. (I. A. 347) Baked clay vessel for serving chicha (Chiriguano). Height 18.3 cm.
Ce [415] [531] Fig. 66. (I. A. 625) Baked clay vessel for serving chicha (Izozó). Hgt. 20.5 cm.
Fig. 67. (I. A. 375) Baked clay vessel for chicha (Chiriguano). Height 13.5 cm.

Chane SF8
Izozo

Plate XX

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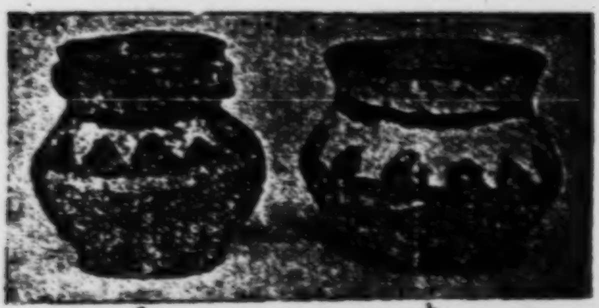
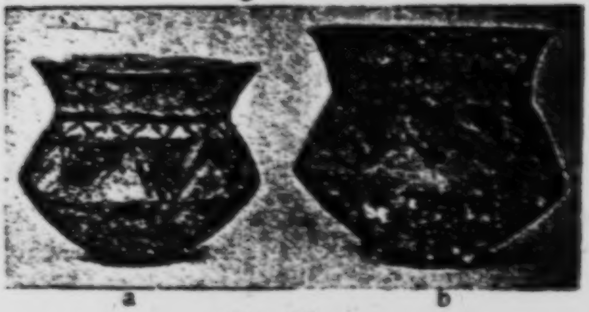

a b
Fig. 68


a b
Fig. 69

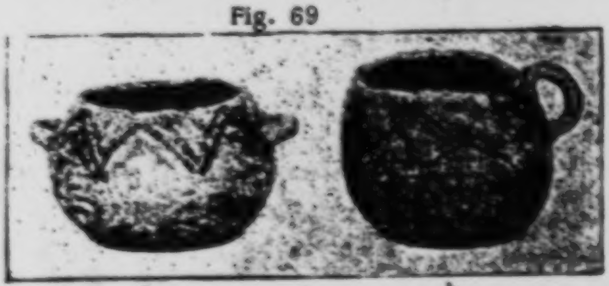

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Fig. 70

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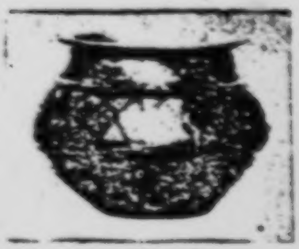
Fig. 71

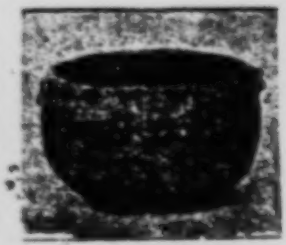
Fig. 72

/The captions appear on p. 134./

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Plate XXI

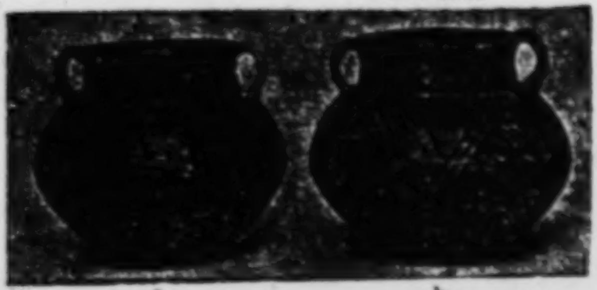
a b

Fig. 73

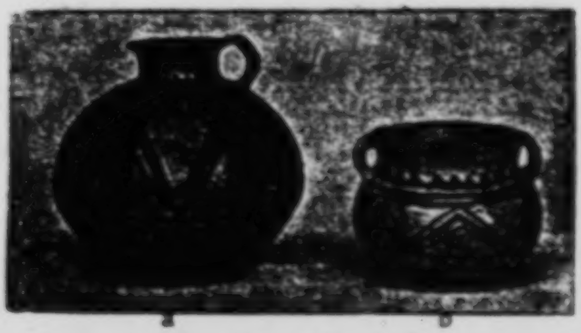
a b

Fig. 74

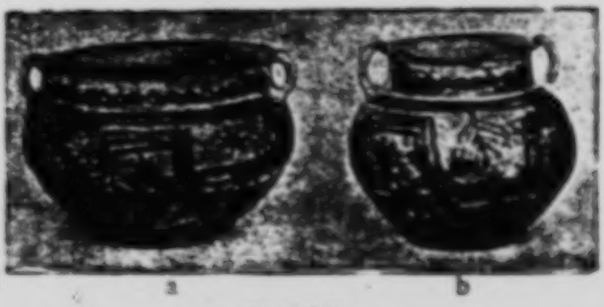
a b

Fig. 75

/The captions appear on p. 134./

Chane SF8
Izozo

/Captions for Plates XX and XXI./

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Fig. 68. Baked clay vessels for *chicha* (Izozó):
a (I. A. 596), height 16 cm. ;
b (I. A. 622), height 15.5 cm.

Fig. 69. Baked clay vessels for *chicha* (Izozó):
a (I. A. 605), height 19.2 cm. ;
b (I. A. 601), height 22.5 cm.

Fig. 70. Baked clay vessels (Izozó):
a (I. A. 599), height 9 cm. ;
b (I. A. 602), height 10 cm.

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[531]

Fig. 71. Baked clay vessel for *chicha* (I. A. 381) (Chiriguano), height 14 cm.

Fig. 72. Baked clay vessel (I. A. 597) (Izozó), height 10.5 cm.

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Plate XXI. Baked clay vessels (Chiriguano).

Fig. 73. Vessels for *chicha*:
a (I. A. 387), height 16 cm. ;
b (I. A. 386), height 16 cm.

Fig. 74. a (I. A. 404), vessel for serving *chicha*, height 20 cm. ;
b (I. A. 383), vessel for *chicha*, height 12 cm.

Fig. 75. Vessels for *chicha*:
a (I. A. 373), height 15 cm. ;
b (I. A. 374), height 16 cm.

/53 cont./

12. Funerary Urns

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In the chapter on the treatment of illnesses and burial, I have already dealt with the Chiriguano custom of placing their dead inside funerary urns and of closing these with other vessels. According to Nordenskiöld (232), the large baked clay

232. Nord. 1, p. 278.

vessels used for preparing and keeping chicha also serve as funerary urns. Because among those Indians burial in funerary urns is a direct burial, that is, the entire corpse is placed within the urn, the vessels selected for funerary urns must be large enough to have room for the corpse of an adult. Unfortunately, I was unable to bring such large vessels from [126] Machareti. The largest of the vessels that I brought, 52 cm. and 62 cm. in height, are not big enough for an adult, and in particular their apertures on top, which measure only up to 24 cm., are too small to be able to squeeze in a dead person. Therefore, with reference to funerary urns and their respective tops, I refer to the drawing made by Nordenskiöld (233). Outes

233. Nord. 1, Fig. 112.

has published a Chiriguano vessel with a height of 77.5 cm. and an aperture on top of 27.5 cm., which had served as a funerary urn for a small child. With the urn was found a small baked clay dish approximately 6 cm. high (234).

234. Felix F. Outes, op. cit., p. 135 and Figs. 30 and 31.

Outes' data show that the vessels of the Chiriguano can reach quite large dimensions (235). Among the vessels

235. Felix F. Outes, op. cit., pp. 177 and 178.

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764
415 /53 cont./

described by him there is one which is 95 cm. high and has an aperture at the top 70 cm. in diameter. Another is 110 cm. high and its maximum diameter measures 85 cm. In 1846, in Capirendá, Wedell found such vessels with a height of 120 cm. and a maximum diameter of 100 cm. for the wall of the belly.

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13. Various Vessels with No Indication Regarding Their Purpose, from the Collection

I.A. 410 (Chirig.). Ht. 14.5 cm. Max. dia. 8 cm. Apert. 5 cm. (Fig. 81b).
I.A. 411 ("). Ht. 13.5 cm. Length 21 cm. (Fig. 81a).
C Ce 415 126 I.A. 597 (Isosó). " 10.5 cm. Max. dia. 16.7 cm. Apert. 15 cm. (Fig. 77).
I.A. 599 (") " 9 cm. " " 13 cm. " 10 cm. (Fig. 78a).

C Ce 415 177 We have no evidence regarding the purpose of these four vessels which are different in form from the other types of vessels. We must regard the small, double vessel I.A. 411 (cf. Fig. 81a /see p.144/) as a special result of the mixture of various, but different cultural elements. The way in which the two small dishes are joined to form a double vessel /54/ corresponds to ancient Peruvian models, while the form of the handle, fitted with a ring, is doubtless an addition of European origin. Ce [439] The whole has the form of a salt cellar and was perhaps made to be sold to the whites for this purpose. We must also consider the vessel I.A. 410 (cf. Fig. 81b /see p.144/) as merchandise, while the two vessels I.A. 597 and 599 seem to be manufactured for some use in festivities.

Baked Clay Spindle Whorls

C Ca 283 323 The spindle whorls collected among the Chiriguano and Isosó are of baked clay or wood, and the Chiriguano also have some spindles with stone whorls. Because I shall deal with spindle whorls in the chapter on spinning, I wish only to

Chane SF8
Izozo

/56 cont./

C Ch 283 323

point out here a difference between the baked clay whorls of the Izozó and those of the Chiriguano with regard to their manufacture. The whorls of the latter are made of pieces of clay from any broken vessel, by filing them round and perforating them in the center, while the whorls of the Izozó consist of a small disk with different variations in form, also perforated in the center, but made of baked clay especially for that purpose.

C Ce 323

Concerning the pottery technique of the Chiriguano and the Chané, we are well instructed by the data given by Nordenskiöld, S. Linné, Métraux (236), and Campana (237).

C Ce [113]

236. Nord. 1, pp. 244 and 245. S. Linné: The Technique of South American Ceramics, Göteborg, 1925. Métraux 1, pp. 382-388.

C [113]

237. Campana (Doménico del). "Notizie intorno ai Ciriguani /Information concerning the Chiriguano/." Archiv per l'antroopologia e la etnologia, Florence, Vol. 32 (1902), p. 382.

C Ce 323 114

Especially noteworthy among these is the description of the manufacture of baked clay vessels by the Chané on the Itiyuro River, which Nordenskiöld studied in its entire procedure. In the book written by Linné, entitled The Technique of South American Ceramics, we find, in addition to the systematic arrangement of the observations made by Nordenskiöld among the Chiriguano and Chané, important data on the results of chemical analyses and microscopic observations which Linné made on the vessels of these Indians. According to this information, the procedure for manufacturing these vessels is the following:

C Ce 323

The first condition for the manufacture of baked clay vessels is the availability of suitable clay which has sufficient plasticity so that the vessel can be modeled and fired without being broken. Only a clay with special qualities can meet

/54 cont./

C Ce 323 these two requirements. Generally it is necessary to correct the defects of the available clay, fixing it by the addition of other substances. Thus the Chiriguano and Chané add to the clay pieces of crushed baked clay. The Chiriguano women in Tarapayu like to use as such an additive, which they call "*takupe*," pieces of baked clay of ancient origin which they find in great number in their territory and which substance also contains, according to microscopic investigation, pieces of baked clay added to the clay (238).

C Ce [113] 238. S. Linné, *op. cit.*, p. 36, Fig. 2, and p. 70. Nordenskiöld, Erland: *Forskningar och Äventyr i Sydamerika* /Research and Adventure in South America/, Stockholm, 1915, p. 34. Nord. 1, p. 284.

From the quality of the substance of a baked clay vessel of the Chané of the Parapití which is in the Göteborg museum, it turns out that these Indians also add sand to the clay, in addition to pieces of crushed baked clay (239). By microscopic analyses of sections of vessels, Linné was able to demonstrate /55/ that pieces of baked clay were added to the clay of the Chiriguano. As a result of these analyses, he points out the following: "Microscopic section analysis of Chiriguano ceramics have shown the materials to contain, besides small quartz grains and larger grains of other minerals, particles of the same colour as the ground-mass, but with distinct outlines. These are due to ground potsherds. There are also some very dark particles, as well as lighter ones, and they, too, are potsherds. The variation as to colour is due to the vessels often in the firing, becoming quite differently coloured in their outer and inner layers" /cited in English/ (240).

C 114 323 239. S. Linné, *op. cit.*, p. 33.

240. S. Linné, *op. cit.*, pp. 37 and 68.

/SS cont./

Ce 323 [114] According to Nordenskiöld's observations among the Chané in Itiyuru, the clay to be used for the manufacture of a vessel was first crushed and then mixed with pieces of baked clay also crushed. We do not know how the clay thus prepared is transmuted by the addition of water into the needed plastic substance. Ce [171] The construction of the vessel is done in the manner most common among South American Indians. First a disk with a raised rim is formed from the clay prepared in the manner described, and this is placed on a piece of cloth or a board. The wall is built on this part, which forms the base of the vessel, by means of rolls of clay which in the form of rings, are placed on top of one another (241). Stones and narrow little sticks of cane are used to smooth the surface of the vessel made in the manner described. These are also used as a gauge to obtain the proper proportions. Ce [324] To rub the surface of the vessels intended for cooking and that of the larger vessels, a maize cob is commonly used, which makes sunken parallel lines so that the surface of those vessels is less smooth(242).

C 323 Using the method described in the above, the Chiriguano manage to make excellent, solid vessels which show a well-proportioned form of wall. According to measurements made by Linné, the radial difference of the aperture of the Chiriguano vessels, whose apertures on top have a diameter of from 15 to 20 cm., is less than 1 mm. (243).

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241. Nord. 1, p. 244. Nord. 2, p. 137. S. Linné, op. cit., p. 78. Métraux I, pp. 373 and 384.

242. Nord. 1, p. 244. Nord. 2, p. 137. S. Linné, op. cit., pp. 107 and 108. Métraux I, p. 384.

243. Linné, op. cit., p. 78.

/55 cont./

323 Data on the thickness of Chiriguano vessels have been given by Outes in his publication which we have mentioned. According to him, "the walls of the vessels, in general, do not show great thickness: in those of larger size, they are from 15 to 20 millimeters: in the medium ones, they do not exceed 8 millimeters: in the small ventricose jars, they vary between 7 and 4 millimeters. As an exception to these, Outes mentions a small vessel with a height of approximately 6 centimeters and a maximum diameter of 12 centimeters, which is relatively thick, since its side walls are from 7 to 9 millimeters and the bottom reaches 15 millimeters (244).

244. Outes, op. cit., p. 128.

323
531 A large part of the vessels are provided, even before being baked, with handles or with different kinds of decoration on their surface. The surface of the neck of the vessels intended for cooking is decorated with sunken ornamentation by impressions made with the finger. Rings of clay are put on the surface of some vessels, as is shown by the piece of baked clay from a Chané vessel shown in a drawing by Linné (245), or the surface

245. Linné, Fig. 21. Nord. 1, p. 245.

is provided with small additions. Cf. the vessel shown in Fig. 44 /see p. 116/. The finer vessels are painted before the firing. The designs are applied in white, red, dark brown, and black (246).

246. Nord. 1, p. 246.

The white color in general is the background color, on top of
913 which are applied /56/ the other colors. For that tiny brushes
[illegible] made of agouti hair or of feathers held together with wax are used (247). The white color is an earth paint (kaolin), the red,

247. Métraux I, p. 205.

fn Schmidt--141 E-5 (1935) 1938 SF10 Chiriguano SF10
Chané SF8

C 316 323 531 /56 cont./ The white color is an earth paint [illegible], the red, dark brown, and black are pulverized mineral substances of the corresponding colors (748). Métraux has published the results

748. Nord. 2, p. 143.

of chemical analyses and petrographic observations which he made on these mineral colors (749).

749. Métraux 1, 335.

According to Nordenskiöld, the Chiriguano at times paint their vessels with a paint consisting of a mixture of urucú and oil, which is probably applied after the vessel has been baked (750).

750. Nord. 2, p. 143.

C C6 323 Before the vessel is baked, it must be quite dry. In the case observed by Nordenskiöld among the Chané on the Itiyuro River, the vessel was dried for a day in the shade, which can be done, according to another note by Nordenskiöld, in the sun as well (751). The baking is done, according to Nordenskiöld's

751. E. Nord., op. cit., p. 131.

observations, by piling firewood, maize cobs, and dry cow dung around the vessel. This fuel must burn with a strong fire for a quarter of an hour and, if the vessel is large, even longer (752).

752. Nord. 1, p. 244. Cf. Nord., Fig. 175.

C 323 [324] Some of the Chiriguano vessels are varnished. According to Nordenskiöld, such vessels are common among the Chiriguano and Chané on the Itiyuro River. They smear them with the resin of a [illegible], which the Chiriguano call "[illegible]." When varnished in this way the vessels acquire a yellowish sheen. Only the vessels of the Chané on the Itiyuro sometimes show black

C6 323 324 326

Ce /38 cont./

323 point on the rim, which is done with the resin of the palo santo
324 (*Bulnesia sarmienti*), which is spread over the surface of the
386 vessel after it has been baked (233).

233. Nord. 1, p. 260. Nord. 2, p. 144. Métraux 1, pp. 388 and 397.

Working of Stone and Metal

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The manufacture of stone implements is not done among the Chiriguano and Chané. The same can be said with respect to the manufacture of metal implements, except that the Chiriguano sometimes make their tembetá of tin themselves (234), while they ordinarily obtain their metal ornaments and implements from the mestizos and the whites.

234. Nord. 2, p. 171.

Woodworking

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[41]

Various objects made out of wood by the Chiriguano have already been mentioned above, such as house posts, ladders, plates, spoons, pipes, bows, arrow points, and also cuyas /vessels made out of gourds/ and calabashes. Among other objects made of wood we must also mention the mortar and pestle, various implements used in weaving, small sticks for making nets, large dishes used for keeping food, and flutes. Because the Chiriguano, when they work wood today, exclusively use modern tools obtained from the whites, they have not retained any of their native technique. /Plates XXII-XXV appear here./

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[178]

Plate XXII

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a Fig. 76 b

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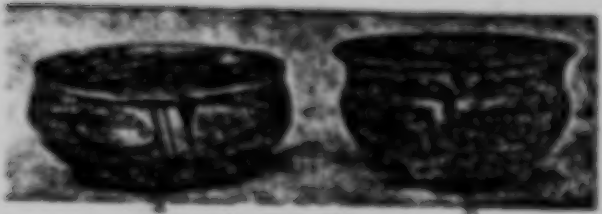

a Fig. 77 b

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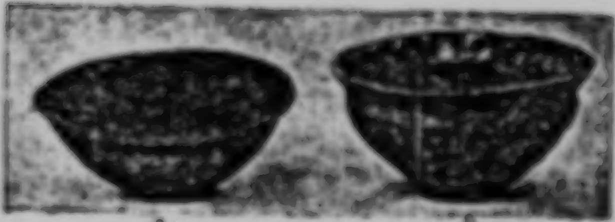

a Fig. 78 b

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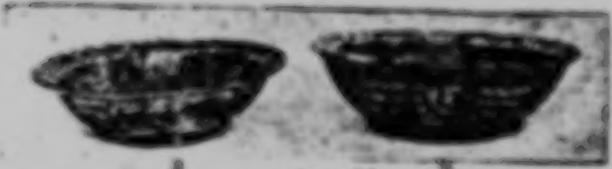

a Fig. 79 b

cc
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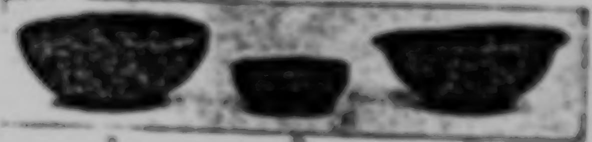

a b c

Fig. 80

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Izozo

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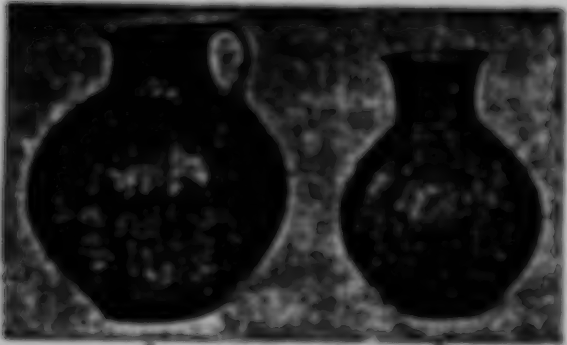
Plate XXIII

a Fig. 61 b



a Fig. 62 b

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C
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b

Fig. 63

Fig. 64.

/The captions are on p. 143./

Ce 415 531 /Captions for Plates XXII and XXIII./

Fig. 76. a (I. A. 600), vessel for chicha (Izozô), height 13 cm. ;
b (I. A. 596), eating dish (Izozô), height 13 cm.

C 415 531 Fig. 77. Vessels for chicha (Chiriguanos):
a (I. A. 408), height 8 cm. ;
b (I. A. 407), height 9 cm.

C 415 Fig. 78. a (I. A. 406), eating dish (Chiriguanos), height 9 cm. ;
Ce 415 b (I. A. 590), eating dish (Izozô), height 13.7 cm.

Fig. 79. Eating dishes (Chiriguanos):
C 415 531 a (I. A. 388), height 6.5 cm. ;
b (I. A. 389), height 8 cm.

Fig. 80. a (I. A. 591), eating dish (Izozô), height 9 cm. ;
Ce 415 b (I. A. 610), vessel used in the spinning technique as a base for the spindle (Izozô), height 5 cm. ;
c (I. A. 613), eating dish (Izozô), height 8 cm.

C 415 Plate XXIII. Baked clay vessels.

531 Fig. 81. Chiriguanos
a (I. A. 411), height 13.5 cm. ;
b (I. A. 410), height 14.5 cm.

Fig. 82. Vessels for serving chicha (Chiriguanos):
a (I. A. 380), height 30 cm. ;
b (I. A. 387), height 18 cm.

Ce 415 Fig. 83. Vessels for carrying or storing water (Izozô):
a (I. A. 621), height 28.5 cm. ;
b (I. A. 608), height 19.5 cm.

C 415 Fig. 84. (I. A. 397) Vessel for carrying or storing water (Chiriguanos), height 25 cm.

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Plate XXIV

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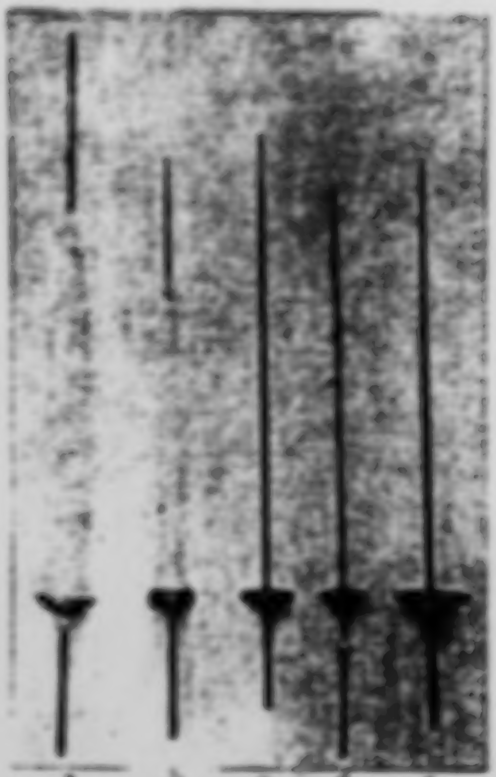

C
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→

Fig. 85

Ce
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Fig. 86

/Titles of plates are on p. 146./

Chane SF8
Izozo.

Plate XXV

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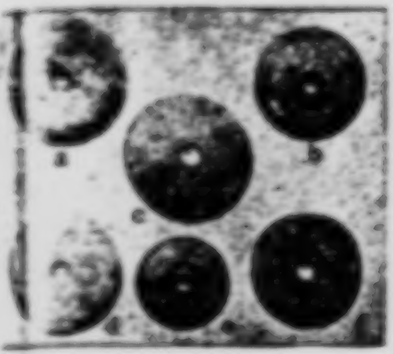

Fig. 87

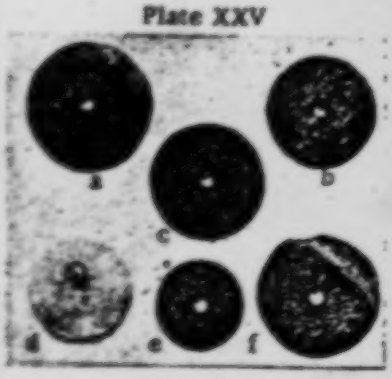

Fig. 88

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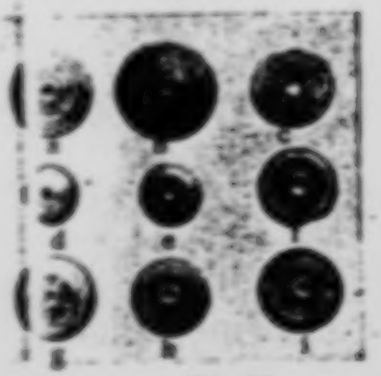

Fig. 89

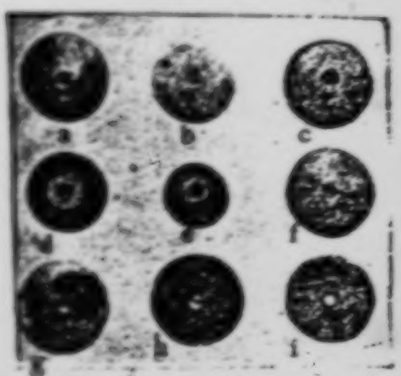

Fig. 90

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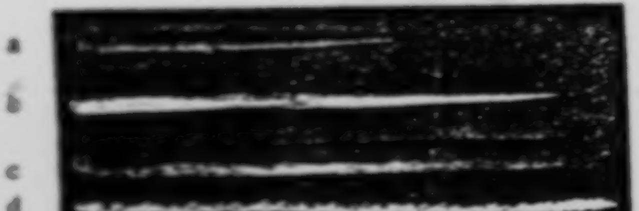

Fig. 91

/The captions are on p. 148./

8: Schmidt--148 E-5 (1935) 1938 SF10 Chiriguano SF10

Chane SF8
Izozo

/Captions for Plates XXIV and XXV./

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Plate XXIV

283 Fig. 85. Spindles, a-d (Izozó), e Chiriguano): a (I.A. 724), length 51 cm.; b (I.A. 703), length 41 cm.; c (I.A. 716), length 41 cm.; d (I.A. 691), length 40.5 cm.; e (I.A. 475), length 42 cm.

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Fig. 86. (I.A. 725 a and b) Basket (height 12 cm.), cotton seeds, raw cotton, and a spindle with thread, and a ball of cotton thread (Izozó).
b (I.A. 726), ball of cotton thread (Izozó), dia. 8.5 cm.

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Plate XXV

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Fig. 87. Wooden spindle whorls (Chiriguano): a (I.A. 478), dia. 6 cm.; b (I.A. 474), dia. 5.2 cm.; c (I.A. 480), dia. 6 cm.; d (I.A. 471), dia. 5.3 cm.; e (I.A. 479), dia. 4.3 cm.; f (I.A. 477), dia. 5.2 cm.

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Fig. 88. Spindle whorls, a-c of baked clay, e-f of stone (Chiriguano): a (I.A. 486), dia. 6.2 cm.; b (I.A. 487), dia. 5.3 cm.; c (I.A. 483), dia. 5.3 cm.; d (I.A. 481), dia. 4.8 cm.; e (I.A. 482), dia. 4.2 cm.; f (I.A. 484), dia. 5.7 cm.

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Fig. 89. Baked clay spindle whorls (Izozó): a (I.A. 705), dia. 4.7 cm.; b (I.A. 687), dia. 5.2 cm.; c (I.A. 700), dia. 4 cm.; d (I.A. 702), dia. 3 cm.; e (I.A. 696), dia. 3 cm.; f (I.A. 690), dia. 4 cm.; g (I.A. 692), dia. 4.5 cm.; h (I.A. 689), dia. 4 cm.; i (I.A. 695), dia. 4.2 cm.

Fig. 90. Baked clay spindle whorls (Izozó): a (I.A. 724), dia. 4 cm.; b (I.A. 708), dia. 3.8 cm.; c (I.A. 709), dia. 4.3 cm.; d (I.A. 721), dia. 3.7 cm.; e (I.A. 722), dia. 3.3 cm.; f (I.A. 720), dia. 4.4 cm.; g (I.A. 711), dia. 4.3 cm.; h (I.A. 713), dia. 4.2 cm.; i (I.A. 710), dia. 4 cm.

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Fig. 91. Implements for weaving: a (I.A. 500), implement for arranging the warp threads (Chiriguano), length 20.5 cm.; b (I.A. 674), implement for arranging the warp threads (Izozó), length 30 cm.; c (I.A. 673), wooden sword for weaving (Izozó), length 30 cm.; d (I.A. 727), shuttle with cotton thread (Izozó), length 33.3 cm.; e (I.A. 728), shuttle with cotton thread (Izozó), length 27 cm.; (I.A. 513) reel (Chiriguano), length 25 cm.

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Grinding the Raw Materials

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For grinding raw materials, principally for grinding corn, the Chiriguano and Chané use large wooden mortars with long pestles (255). Such a wooden mortar is shown in Figure 15 and

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another one by Nordenskiöld (256). Stone mills are not used by these Indians, although this implement was used, except for the Chaco tribes, by all the tribes whom the Chiriguano had as neighbors after their migration to the west.

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According to Métraux, a small stone mill is used only for grinding the seeds of a plant which the Chiriguano use as soap for washing their hair. Such a stone mill is shown in a drawing by Métraux (257).

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Because the wooden mortar is common even today among the Kainguá /Caingua/, who also belong to the Guaraní linguistic group, and is also mentioned for the ancient Tupinambá /Tupinamba/ of the eastern coast of Brazil, we can assume that the Chiriguano brought this cultural possession from their native land.

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The fact that mandioca is not important in the economy of these Indians explains why they do not use the wooden grater, the application of which is diffused among so many other Indian tribes of South America who cultivate this nourishing root.

Making Cord and Thread

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The thread that the Chiriguano and Chané make out of wool or cotton is spun by means of the spindle, while that made of caraguata is twisted by hand. We have no information on the way this caraguata thread is twisted.

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255. Nord. 1, p. 51. Métraux I, p. 365, Fig. 30.

256. Nord. 1, Fig. 116.

257. Métraux I, p. 467, Fig. 122.

/57 cont./

C Ce 283 The direction in which the threads are twisted by these Indians is generally to the left, while the two skeins which generally make up each thread are usually twisted to the right. See the two sketches shown in Figure 137 /see p.201/. The rather heavy cotton cord stretched out on the loom shown in Figure 104 /see p.176/, used for stretching the warp, is twisted to the right, but it consists of three special threads twisted to the left, which in turn are each made up of two skeins twisted to the right. The strings for the bows for shooting arrows, made of only one skein of animal hide, are twisted to the right. The rule is that all threads, whether they be caraguata threads made by hand or wool or cotton threads made with the spindle, are twisted to the left, made up of two skeins twisted to the right. In examining many threads of the Chiriguano and the Izozó, I found only two exceptions to this rule. Of the two threads wound together on the reel I. A. 413 /I. A. 513 in Fig. 91, p.147/ and each made of two skeins, one is twisted to the right and the other to the left, and the thick wool threads of the warp of the plaited hammock I. A. 448 are twisted to the right, being made of two skeins twisted to the left.

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Thread in the Collection

126 I. A. 675. Caraguata thread (Izozó).
/58/
I. A. 676. Ball of cotton thread (Izozó). Dia. 9 cm.
I. A. 726. " " " " " " 9.5 cm. (Fig. 86b).

C Ce 283 126 In addition to the large number of spindles from the Chiriguano and the Izozó, I obtained from these Indians a small basket which contains the raw material needed for spinning cotton thread and a spindle wrapped with cotton thread which is connected to a ball of thread of this material.

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Implements and Raw Material for Spinning, from the Collection

I. A. 725.

126 a. Basket (Izozó), length 27 cm., height 12 cm., cotton seeds and raw cotton. (Fig. 86a.)

Chane SF8
Izozo

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b. Spindle provided with a whorl of baked clay. Length of the stick 46 cm. Diameter of the whorl 4.2 cm. Ball of cotton thread. (Fig. 86a.)

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I.A. 470.	Spindle	(Chir.).	Lgth.	44.5 cm.	Wooden	whorl.	dia. 4.8 cm.
I.A. 471. (Fig. 87d)	"	"	"	36.5 cm.	"	"	5.3 cm.
I.A. 472.	"	"	"	39 cm.	"	"	6 cm.
I.A. 473.	"	"	"	34.5 cm.	"	"	5.7 cm.
I.A. 474. (Fig. 87b)	"	"	"	38 cm.	"	"	5.3 cm.
I.A. 475. (Fig. 85e)	"	"	"	40.5 cm.	"	"	5.8 cm.
I.A. 476.	"	"	"	42.7 cm.	"	"	6.5 cm.
I.A. 477. (Fig. 87f)	"	"	"	38.5 cm.	"	"	5.8 cm.
I.A. 478. (Fig. 87a)	"	"	"	42 cm.	"	"	6 cm.
I.A. 479. (Fig. 87e)	"	"	"	25.5 cm.	"	"	4.2 cm.
I.A. 480. (Fig. 87c)	"	"	"	32.3 cm.	"	"	6 cm.
I.A. 481. (Fig. 88d)	"	"	"	40 cm.	Stone	whorl	4.8 cm.
I.A. 482. (Fig. 88e)	"	"	"	25.5 cm.	"	"	4.2 cm.
I.A. 483. (Fig. 88c)	"	"	"	37 cm.	Baked clay	whorl	5.3 cm.
I.A. 484. (Fig. 88f)	"	"	"	42 cm.	Stone	whorl	5.7 cm.
I.A. 485.	"	"	"	31 cm.	Baked clay	whorl	4 cm.
I.A. 486. (Fig. 88a)	"	"	"	35.7 cm.	"	"	6.2 cm.
I.A. 487 (Fig. 88b)	"	"	"	30 cm.	"	"	5.3 cm.
I.A. 488.	"	"	"	? cm.	"	"	5 cm.
I.A. 489.	"	"	"	35.5 cm.	Wooden	whorl	5.5 cm.
I.A. 687. (Fig. 89b)	"	Izozó)	"	43 cm.	Wooden	whorl	5.2 cm.

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B: Schmidt--158 E-5 (1935) 1908 SF10 Chiriguano
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1.A. 688. Spindle (Izoná) Lgth. 39 cm. Wooden whorl 3.7 cm.
1.A. 689. " " " 31 cm. " 4 cm.
(Fig. 89h)
1.A. 690. " " " 39.5 cm. " " 4 cm.
(Fig. 89f)
1.A. 691. " " " 40.5 cm. " " 4.5 cm.
(Fig. 85d)
1.A. 692. " " " 39.5 cm. " " 3.5 cm.
(Fig. 89g)
1.A. 693. " " " 33 cm. " " 4 cm.
1.A. 694. " " " 45.5 cm. " " 4 cm.
1.A. 695. " " " 42 cm. " " 4.2 cm.
(Fig. 89a)
1.A. 696. " " " 37.5 cm. " " 3 cm.
(Fig. 89e)
1.A. 697. " " " 31.7 cm. " " 3 cm.
1.A. 698. " " " 45.5 cm. " " 4.2 cm.
1.A. 699. " " " 32.5 cm. Wooden whorl. dia. 3.5 cm.
1.A. 700. " " " 34.5 cm. " " " 4 cm.
(Fig. 89c)
1.A. 701. " " " 40 cm. " " " 2.8 cm.
1.A. 702. " " " 33 cm. " " " 2 cm.
(Fig. 89d)
1.A. 703. " " " 41.2 cm. " " " 3 cm.
(Fig. 85b)
1.A. 704. " " " 54.5 cm. " " " 4 cm.
1.A. 705. " " " 33.5 cm. " " " 4.7 cm.
(Fig. 89a)

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1.A. 706. Wooden whorl without stick (Izoná). Dia. 4 cm.
1.A. 707. " " " " " " 3 cm.
1.A. 708. Spindle (Izoná). Lgth. 42.5 cm. Clay whorl. dia. 3.0 cm.

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(Fig. 90b)
1.A. 709. " " " 38.5 cm. " " " 4.2 cm.
(Fig. 90c)
1.A. 710. " " " 43 cm. " " " 4 cm.
(Fig. 90i)

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Izozo

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I. A. 711. (Fig. 90g)	Spindle	(Izozó).	Lgth.	36.2 cm.	Clay	whorl,	dia.	4.3 cm.
I. A. 712.	"	"	"	33.5 cm.	"	"	"	4.2 cm.
I. A. 713. (Fig. 90h)	"	"	"	43.5 cm.	"	"	"	4.2 cm.
I. A. 714.	"	"	"	46 cm.	"	"	"	4 cm.
I. A. 715.	"	"	"	43.5 cm.	"	"	"	3.8 cm.
I. A. 716. (Fig. 85c)	"	"	"	41 cm.	"	"	"	3.8 cm.
I. A. 717.	"	"	"	42.5 cm.	"	"	"	3.5 cm.
I. A. 718.	"	"	"	36 cm.	"	"	"	3.3 cm.
I. A. 719.	"	"	"	36.5 cm.	"	"	"	3.7 cm.
I. A. 720. (Fig. 90f)	"	"	"	41.2 cm.	"	"	"	4.4 cm.
I. A. 721. (Fig. 90d)	"	"	"	34.5 cm.	"	"	"	3.7 cm.
I. A. 722. (Fig. 90e)	"	"	"	38.5 cm.	"	"	"	3.3 cm.
I. A. 723.	"	"	"	40.5 cm.	"	"	"	2.5 cm.
I. A. 724. (Figs. 85a and 90a)	"	"	"	51 cm.	"	"	"	4 cm.

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The spindles that I obtained from the Chiriguano and Izozó are the type of spindle, very common among the Indians of South America, that Nordenskiöld calls "Bakairí type" in contrast to the "Bororo type," this nomenclature being based on the first description of these two types of spindles by Carl von den Steinen, who found them among the Bakairí /Bacairi/ on the one hand and among the Bororó on the other (258). In contrast with the

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258. Carl von den Steinen, Unter den Naturvölkern Zentral-Brasiliens /Among the Primitive Peoples of Central Brazil/, Berlin, 1894, pp. 238 and 488. Nord. 2, p. 196. Otto Frödin and Erland Nordenskiöld, Zwirnen und Spinnen bei Indianern Südamerikas /Twining and

Chane SF8
Izozo

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[113]

/59 cont./

Spinning among South American Indians/. Göteborg, 1910.

"Bororo type," the "Bacairí type" of spindle is held in a vertical position when used for spinning and has a small enlargement in the form of a knob at the upper end of the stick. In spinning, the prepared thread winds around the upper piece of the stick. The material of the Chiriguano and Izozó whorls is baked clay (that of the Chiriguano, pieces of broken baked clay vessels, filed), wood, or, rarely, among the Chiriguano, stone.

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From the measurements mentioned above, it seems that the Chiriguano whorls usually have a rather larger diameter than the spindle whorls of the Izozó. The longest stick in the collection (from the Izozó) measures 54.5 cm.; the shortest (from the Chiriguano), 25.5 cm.

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As I have already mentioned, all the sticks of the Chiriguano and Izozó spindles are fitted at the upper end with an enlargement in the form of a knob. Most of the spindle sticks in addition have an enlargement in the lower part, directly under the place where the whorl is put, so as to prevent the whorl from coming down the stick when the spindle is in a vertical position. Many spindles have a wrapping of cotton or raw wool directly under the whorl in order to make the whorl secure.

The form of the whorls shows many variations. I have already mentioned that the Chiriguano whorls are generally larger than those of the Izozó. They are also more uniform. The two sides of the baked clay of the Chiriguano are simply flat and smooth, which results from their origin as pieces of broken baked clay vessels to which the Chiriguano give the form of a disk by filing them and which they perforate in the center. The stone whorls of the Chiriguano /60/ and most of the wooden whorls also show the same form. But among the latter there are also some (cf. Fig. 87 /see p. 147/) which are similar to the more complicated forms of the Izozó whorls, although they differ from the latter in their greater size.

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Among the Izozó whorls only two have two flat sides like the Chiriguano whorls. The other Izozó whorls, not only those of baked clay but also the wooden ones, show great variation in

Ce /60 cont./
283 form. many of them being similar in form to the whorls of the
171 ancient Peruvians. Cf. Figures 89 and 90 /see p. 147/.

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The Technique of Plaiting

In a legend told to me by a Paresí Indian in Mato Grosso, the appearance of a new epoch is discussed. The young generation of the Paraesís /Paresí/ complains to the grandfather that they have now forgotton the manufacture of the bottoms of their different baskets, that is, the beginning and thus the rudiment
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of that work. The Chiriguano can make the same complaint to their grandfathers. They have also forgotten, as a result of the appearance of a new era, that is, as a result of their contacts with the whites, most of the elements of the art of plaiting, and imitations of European merchandise or of the plaited objects of neighboring Indians, less cultivated than they, are only poor compensation.

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Of the four principal types into which all the plaited objects of the Indians of South America can be classified with regard to their technique, which I have called in my publications which deal with them (259) "Stufengeflechte /step plaiting/, Doppelfadengeflechte /double-thread plaiting/, Rohrstuhlgeflechte /caning/, and Geflechte in Spiralwulsttechnik /plaiting in coiling technique/," only the first two can be found among the Chiriguano and the Chané-Izozó. It is surprising that the fourth type (Geflechte in Spiralwulsttechnik) of plaited objects does not exist among these Indians, because this technique was the most common one in the mountainous regions neighboring Chiriguano territory.

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259. Max Schmidt. Lehrbuch der Völkerkunde /Textbook for Ethnology/, Berlin, 1924, pp. 154-157.

/60 cont./

C 285 Plaited objects of the first type are made in such a way that the strips of one group are plaited with the strips of another group vertical to the first one, in such a way that the strips of the first group pass alternately a certain number of the strips of the second group and are passed by them, and in such a way that the meshes which go in the same direction form lines of steps. The number of the strips passed each time by one strip of the other group is generally three or two at a time, but there are cases in which only one strip is passed each time.

C [126] [513] [415] [291] CC [415] [126] C CC 285 372 Among the plaited objects of this type, I obtained from the Chiriguano a large sleeping mat, small flat baskets /canastillas/, sieves, a quadrangular basket /cesta/, and a hat, and from the Izozó small flat baskets /canastillas/ similar to those of the Chiriguano and two different kinds of baskets /cestas/. In addition, the Chiriguano and Chané also infrequently use fans for fanning the fire (tapékua) plaited out of palm leaves (260).

260. Nord. 1, p. 56.

Ee [824] Métraux has described and shown in a drawing such a fan for fanning the fire. This fan is plaited out of the leaves of the caranday palm in the "Stufengeflecht" style, in such a way that strips of the first group pass alternately two strips of the second group and are /Plates XXVI-XXVII appear here/ /61/ passed by them. The leaflets, separated from the stem, enlace a stick which, forming the upper edge of the fan, replaces the stem of the pinnate leaves of other palms which are used by other tribes of South American Indians in the manufacture of plaited fans (261).

261. Métraux 1, pp. 460 and 461 and Plate 85.

Plate XXVI

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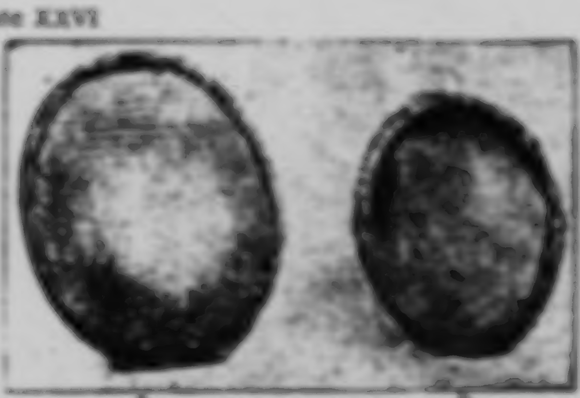

Fig. 92

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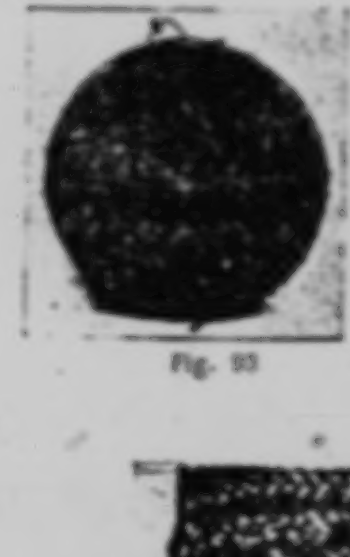

Fig. 93

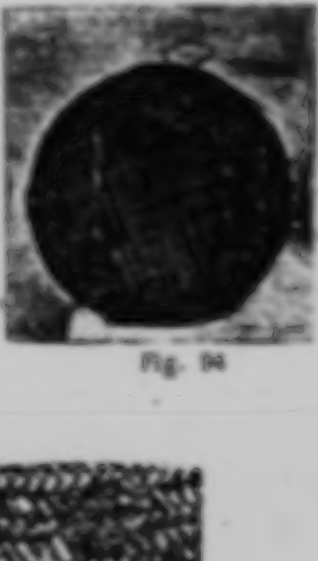

Fig. 94

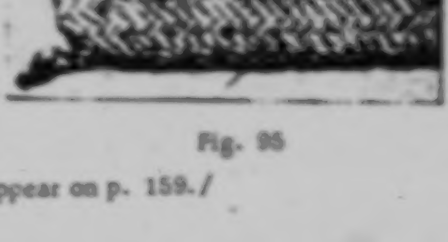

Fig. 95

e captions appear on p. 159./

Chane SF8
Izozo

Plate XXVII

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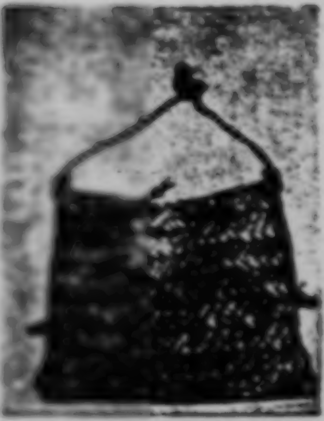

Fig. 96

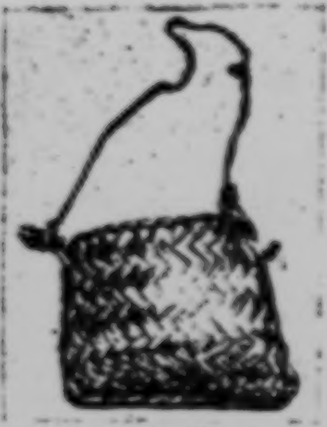

Fig. 97

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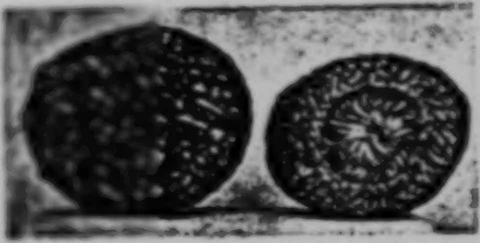

Fig. 98

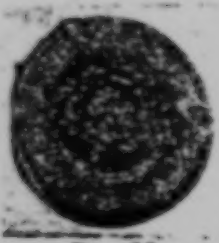

Fig. 99

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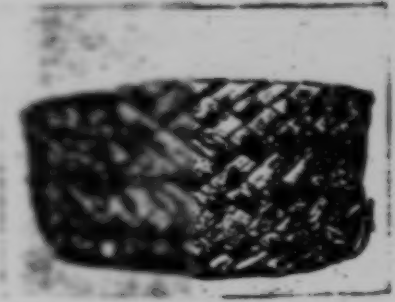

Fig. 100

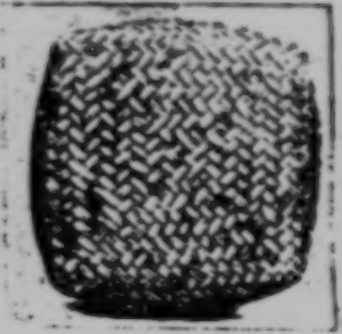

Fig. 101

/The captions appear on p. 159./

Chane SF8
Izozo

/Captions for Plates XXVI and XXVII/

Plate XXVI. Plaited objects.

Ce 285 Fig. 92. Flat baskets /*canastillas*/:
a (I. A. 746) (Izozó), diameter 46 cm.;
C 285 b (I. A. 541) (Chiriguano), diameter 39 cm.

Fig. 93. (I. A. 546) Flat basket /*canastilla*/ (Chiriguano), diameter 32 cm.

Fig. 94. (I. A. 548) Sieve (Chiriguano), diameter 39 cm.

Fig. 95. (I. A. 540) Mat plaited out of caranday leaves (Chiriguano), length 1.72 m.

Plate XXVII. Plaited objects.

Ce 285 Fig. 96. (I. A. 681) Basket /*cesta*/ (Izozó), length 27 cm.

Fig. 97. (I. A. 683) Basket /*cesta*/ (Izozó), length 26 cm.

Fig. 98. Bottoms of baskets /*cestas*/ (Izozó):
a (I. A. 677), length 33 cm.;
b (I. A. 678), length 28 cm.

C 285 291 Fig. 99. (I. A. 554) Interior surface of a hat (Chiriguano), diameter 30 cm.

Ce 285 Fig. 100. (I. A. 677) Basket /*cesta*/ (Izozó), length 33 cm.

C 285 Fig. 101. (I. A. 551) Bottom of a basket /*cesta*/ (Chiriguano), length 32 cm.

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Plaited Objects of the First Type (Stuhlgeflechte) in the Collection

C 126 285 I. A. 540. Mat (Chir.) Lgth. 1.72 m. Width 1.30 m. (Fig. 90)
I. A. 541. Flat basket (Chir.). Dia. 30 cm. (Fig. 97b.)
I. A. 542. " " " " 42 cm.
I. A. 543. " " " " 43 cm.
I. A. 544. " " " " 38 cm.
I. A. 545. " " " " 51 cm.
I. A. 546. " " " " 32 cm. (Fig. 93.)
Ce [285] I. A. 744. " " (Izozo) " 36 cm.
I. A. 745. " " " " 37 cm.
I. A. 746. " " " " 46 cm. (Fig. 97a.)
I. A. 547. Sieve (Chiriguano). " 38 cm.
I. A. 548. " " " 39 cm. (Fig. 94.)
I. A. 549. " " " 39 cm.
I. A. 551. Basket " Lgth. 32 cm. Ht. 16 cm. (Fig. 101)
Ce 285 I. A. 677. " (Izozo) " 33 cm. " 16.5 cm. (Figs. 98a, 100)
126 I. A. 678. " " " 28 cm. " 14 cm. (Fig. 98b)
I. A. 725. a. " " " 27 cm. " 13 cm. (Fig. 81a)
I. A. 679. " " " 21 cm. " 22 cm.
I. A. 680. " " " 30 cm. " 21 cm.
I. A. 681. " " " 27 cm. " 23 cm. (Fig. 97).
I. A. 682. " " " 31 cm. " 16 cm.
I. A. 683. " " " 26 cm. " 21 cm. (Fig. 97)
I. A. 684. " " " 55 cm. " 29 cm.
I. A. 685. " " " 44 cm. " 30 cm.
C I. A. 686. " " " 46 cm. " 34 cm.
285 I. A. 512. Small bag with cover (Chir.) " 9.5 cm.
[291] I. A. 554. Hat (Chiriguano). Ht. 12 cm. Dia. 30 cm. (Fig. 99.)

The material of the plaited objects that I have mentioned above consists of strips of palm leaves or strips of cane, and that of the Chiriguano basket I. A. 551, of strips of wood. Because these Indians do not have palms with pinnate leaves available, they must use the peltate leaves of the caranday, from which comes the difference between the plaited objects of these Indians and those of other Tribes. {C [324]}

O: Schmidt--161 E-5 (1938) 1914 SF10 Chiriguano SF10
Chane SF8
Izozo
Guato SP15

/61 cont./

629 of other tribes. For example, the Guató Indians make mats simi-
GO lar to the mat collected among the Chiriguano, as well as baskets
285 similar to one type of basket from the Izozó, from the large
171 224 pinnate leaves of the acurí palm (Cocos schizophylla Mart.).
GO The stem or stems of these, from which go the leaflets that form
285 the plaiting, form the upper edge of the mat or baskets. With
[104] regard to the caranday palm, it is necessary to detach the leaflets from the stem in order to place them in the position necessary for plaiting them with one another. Therefore the upper edge is formed like a braid to which the leaves are attached in order to be able to proceed to plait from this rudiment. The lower edge is also formed like a braid, which joins the free ends of the strips and terminates in two ends, one at each /62/ side, which project beyond the side edges of the mat. The mat is plaited in such a way that one strip passes two of the other group each time. The decoration is made up of simple stripes parallel to the upper edge of the mat.

C
CE The small flat baskets of the Chiriguano and Izozó are, in general, similar in form and dimensions. These are plaited with
285 strips of cane and, at their outer edge, have a wooden hoop.
531 Like the mat which has been mentioned, they are plaited in such a way that one strip of one group always passes two strips of the other group, and therefore the surface shows the same ornamentation, which consists of parallel stripes and is typical of all objects plaited in this way. In this ornamentation of the flat baskets there is one difference in that on some of them the entire surface is always filled with parallel lines, all going in the same direction (cf. Fig. 946 /see p. 157/), while the decoration of most of these small baskets consists of concentric squares (cf. Fig. 98 a and b /see p. 157/) formed by the combination of four surface units, two of which show parallel lines in the direction vertical to that of the parallel lines of the other two units. With regard to the details of the formation of such decoration by the technique itself, I refer to my publications regarding this matter (262).

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262. Max Schmidt: Indianerstudien in Zentralbrasilien /Indian Studies in Central

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Brazil/. Berlin, 1905, pp. 330 ff.; and Die technischen Voraussetzungen in der Ornamentik der Eingeborenen Südamerikas/ The Technical Bases for the Ornamentation of the Natives of South America/.

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[126]

The three sieves that I obtained from the Chiriguano correspond to the flat baskets described above with respect to their exterior form and to the rudiment of the plaiting. They differ from the latter only in that their strips are a certain distance apart and in that one strip of one group always passes only one of the other group, with the result that the ornamentation of the surface consisting of parallel lines which is shown in the little baskets is not produced. These sieves are also provided with handles like the flat baskets of the Chiriguano. A sketch of a Chané sieve shown by Nordenskiöld shows that these Indians also use such sieves (283). Flat baskets and sieves analogous to

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[285]

283. Nord. 1. Fig. 126.

those mentioned are described by Métraux and shown by him in drawings (284).

284. Métraux 1. pp. 437-440, Plates 83, 86.

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The technique of the Chiriguano hat (L.A. 396) is not original, but no doubt was received from the whites and perhaps was directly taught to the Indians in the missions. For us the technique of this hat is without interest, except for the fact that this technique is also applied by the Izoceño to the making of a type of basket, a specimen of which is shown in Figure 58b /see p. 159/. The manufacture of the hat begins at the center, and the strips, the beginning of which is plaited, are augmented by the addition of other strips. See Figure 59 /see p. 156/. The style of plaiting is like that of all the other objects of this kind among the Chiriguano and Chané, so that one strip of one group always passes two strips of the other group.

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The technique of the small bag I.A. 512, which has a cover and corresponds in form to a modern cigar case, is of no interest to us, because this is a product of modern manufacture.

Baskets I.A. 551 (of the Chiriguano) and I.A. 677 (of the Izozó) are of special interest because they represent the product of a new era in which the primordial devices of the technique have been forgotten and therefore they have lost the typical forms of the products of these techniques. The making of this type of basket, which is widespread among the Indian tribes of South America, begins with the making of the bottom and ends at the upper edge of the basket where the free ends of the strips are /93/ fastened. If we compare the structure of the bottom of these Chiriguano baskets with the structure of corresponding baskets of other tribes of South American Indians, such as with the structure of the baskets of the Bororó on the tributaries of the Xingú River (Mato Grosso, Brazil) or of the tribes of the Rio Negro, our attention is drawn to the great difference with respect to the conformity of the work. In my above-mentioned publications (283) I have described this kind of basket in more detail, and I have demonstrated that the special design which appears in two variations on the bottom of most of the baskets of this kind that are not yet degenerate is consistent with the technique, because only a bottom decorated in this way can be a proper beginning in order to form the walls of the basket. Moreover, there is the difficulty that for the fabrication of the four walls of one of these baskets one needs twice as many strips as the number of the free ends which come out of the plaited square or rectangle which forms the bottom of the basket. Therefore, the Indians who still know exactly how to plait these baskets plait in the beginning a flat rectangular piece twice as large as the projected bottom of the basket. Then the four edges of this rectangle are folded upward, in this

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283. Max Schmidt: *Indianerstudien*, *loc. cit.*; and *Die technischen Voraussetzungen*, pp. 137 and 138.

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way serving as parts of the walls of the basket, the latter then being completed by plaiting the free ends of the strips with one another. By this device they manage to obtain a sufficient number of strips to form the walls of the basket. The Chiriguano and Chané of today are ignorant of this device and therefore they cannot make exact baskets of this kind. We do not know whether they gradually forgot the devices of their primordial plaiting technique under the influence of imported crafts or through the introduction of new ideas, or whether they may have imitated forms of baskets which they saw among other tribes of Indians without knowing the devices of the technique.

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The bottoms and thus the rudiments of the two baskets I. A. 678 and 725a, shown in Figures 86a and 86b, are formed in a manner completely different from the bottoms of the two baskets described above. In making these baskets the Indians have availed themselves of the experience which they have had in the manufacture of the modern hat described above. Beginning the plaiting of these two baskets in the center of the bottom exactly corresponds to the beginning of making the hat, outside of the fact that the strips of the baskets, consisting of caranday palm leaflets, are wider and therefore the mesh is much larger. Where the side walls of the basket begin and more strips are needed than for the bottom, other strips are added, but, in contrast to the manufacture of the hat, by means of a kind of plaiting that joins the free ends of the original strips with the additional strips so that all together they are used to weave the sides of the basket. Also, the analogous baskets of the Chiriguano of the Caipipendi valley described and shown in drawings by Métraux seem to be strongly influenced by modern techniques (266).

266. Métraux. I, pp. 454-457. Plates 58-61.

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One type completely different from the baskets described above is shown in the Izozó baskets I. A. 679-686. The plaiting of these does not begin at the bottom like the plaiting of the other baskets, but at the upper edge, and it ends with the making of the bottom. I have minutely described this type of

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Ce 285 basket, which appears among many other Indian tribes of South America, in dealing with the corresponding baskets of the Guató Indians, and I refer here to the pertinent descriptions and diagramatic sketches made to explain the manufacture of this type of basket (267).

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267. Max Schmidt: Indianerstudien in Zentralbrasilien. pp. 221-227.

GO 524 286 Because the Guató use the pinnate leaves of the acurí palm as /64/ material for these baskets, they are able to leave the leaflets needed for plaiting the basket attached to the stem, which then forms the upper edge of the basket. Ce 285 [824] The Izozó, not having pinnate palm leaves available, have to use the peltate leaves of the caranday. They must remove the leaflets of these in order to use them for the making of baskets. Therefore these baskets begin at the upper edge with a kind of braid, which unites the separate leaflets for plaiting the walls of the basket. As Figures 96 and 97 show, this braid begins and ends with a knot. These two knots are found at the side of the basket or at the middle of the wall and are in most cases tied with a thread wrapping to prevent an interruption of the rim at that place. The strips coming out of the braid are interwoven in such a way that a sleeve form results, the opening of which, below, is closed by a double braid whose two ends at the two sides of the basket pass through the wall and come out again on the outside of the wall, each one ending in a knot. The ends of the braids of the bottom of basket I. A. 683 (cf. Figure 97 /see p. 158/ form at the same time the handle of the basket. The handles of other baskets of this kind consist of a string or a strip of leather.

C Ce 286 [301] Braids like or similar to those which sometimes form the handles of the baskets described above are used by the Chiriguano and the Izozó in other cases as well, such as sometimes in the fringes of the fajas and especially for making the middle section of the women's hair bands previously mentioned.

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There may be variations in these braids according to the difference in the number of skeins plaited and the number of strips which are passed each time by one strip of the braid, as Figures 139-141 show /see p.201/. The greater the number of skeins in the braid, the more the form of one string of the braid takes on the appearance of a band. Cf. Figure 32 a and b /see p. 62/.

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To the second of the four kinds of plaited objects into which all the plaited objects of the South American Indians can be classified belong those which are plaited in such a way that one row of sticks, threads, or similar things are united so that a double thread passes the row, continuously or at certain intervals, and in such a way that the two individual threads of the double thread encircle in each rotation one or more of the little sticks or threads of the row.

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Among the objects plaited by this technique there are two Chiriguano hammocks and one Izozó saddle covering in the collection.

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Objects Plaited with Double Thread, from the Collection

I. A. 448. Hammock (Chirig.). Wool. Lgth. 2.60 m. Width 0.75 m.
(Fig. 102b and 109.)
I. A. 449. Hammock " " " 2.05 m. " 0.60 m.
(Fig. 110.)
I. A. 844. Saddle covering (Izozó) " 1.21 m. " 0.57 m.
(Fig. 103b and 129.)

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The threads of the hammocks mentioned above are made of wool and that applies not only to the warp threads but also to the double threads. The manufacture of these hammocks is explained in two schematic drawings shown in Figures 109 and 110 /see Figs. 127 and 128, p.190/. The diagram in Figures 109 /Fig. 127/ shows the place in hammock I. A. 448 where the double thread begins to pass through the row of warp threads. The arrangement of the warp threads can be explained only by the manner in which a warp of one continuous thread was made first and in the form of a sleeve, /65/ as the warp of weavings done on a loom

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Izozo

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/65 cont./

is made. The double threads, when they pass through the warp threads, encircle with each loop caused by their rotation one thread of the front side of the warp and one thread of the back of the warp. Only at the side edge do they encircle, as Figure 109 /Fig. 127/ shows, three or four threads with each loop. The double thread which begins at the right side of the diagram runs through the entire width of the warp in the way shown in the diagram. When it arrives at the other side, the double thread does not turn around to pass through the warp in the opposite direction, but its ends are fastened, and at set distances other double threads pass through the warp in the same way as the first. Hammock I. A. 449 shows the same arrangement of threads and warp, and the double thread passes through the warp in the same manner, except that at the side edge too it encircles only two threads of the warp, and in this case too one thread of the front side of the warp and one thread of the back side of it. See the diagram shown in Figure 110 /Fig. 128/.

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The Izozó saddle cover mentioned above shows a peculiarity inasmuch as the double threads are compressed, one beside the other, in such a way that they form a compact material in which the warp threads disappear under the double threads. Likewise in this saddle cover two warp threads are encircled by each loop of the double thread, and more threads only at the two sides. But one difference from the hammocks plaited with double thread is that the double thread, after having passed through the warp threads from one side to the other side, returns in the opposite direction, passing through the warp threads. Another peculiarity is that each of the consecutive rows of the mesh of the double thread shows an opposite direction each time, as a result of which there appears a kind of decoration on the surface, consisting of stripes. As the diagram in Figure 111 /Fig. 129; see p.190/ shows this peculiarity is produced by the special way in which the outer warp threads are encircled by the double thread.

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415 Wooden Hoops for Storing Possessions, in the Collection

[126]

I. A. 580.	A pair of hoops	(Chiriguano).	Diameter	53 cm.	
I. A. 581.	" " " "	"	"	51 cm.	
I. A. 582.	" " " "	"	"	46 cm.	
I. A. 583.	" " " "	"	"	43 cm.	(Fig. 41).
I. A. 584.	One hoop	"	"	48 cm.	

In the Chiriguano houses in Macharete I found hanging wooden hoops, which, usually in pairs, served for storing various [285] possessions of the Indians. The circular area of the hoops is filled in with strips of cane that are stretched across the hoop and interwoven as Figure 41 shows. The hoops are provided with strings or strips of leather in order to be hung in the houses (268).

268. See Métraux I, p. 471, Figs. 126 and 127.

285 Modern Plaited Objects in the Collection

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I. A. 503.	Basket	(Chiriguano).	Diam.	18 cm.	Height	12.5 cm.
I. A. 550.	"	"	"	27 cm.	"	13 cm.
I. A. 552.	"	"	"	31 cm.	"	23 cm.
I. A. 553	Flat basket	"	"	56 cm.	"	16 cm.

/66/ I obtained from the Chiriguano some baskets whose technique is completely different from the technique of the [171] baskets described above. They are so similar to the baskets commonly used by the Paraguayans that we must consider them products of an absolutely modern craft, and it is not necessary 285 for us to deal with their technique. Nordenskiöld and Métraux show in sketches and describe such baskets of the Chiriguano, among which some have handles and others lids (269).

269. Nord. 2, p. 171 and Figs. 53 and 51. Métraux I, pp. 444-453, Plates 73-77.

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Izozo
Paressi SP19

/66 cont./

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171

The Technique of Weaving

On the occasion of the publication of a Paressí-Kabichí /Paressi-Cabishi/ loom (270), I called attention to the great similarity among all the looms known up to now among the Aruaco /Arawak/ tribes. The loom that I obtained from the Izozó corresponds in form and construction to the Paressí-Kabichí loom described and shown in a sketch by me, but it demonstrates, discounting some insignificant anomalies, a perfection which Nordenskiöld has already mentioned (271).

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270. Max Schmidt, Die Paressi-Kabichí, Ethnologische Ergebnisse der Expedition zu den Quellen des Jauru und Juruena in Jahre 1910 /The Paressi-Cabishi, Ethnological Results of the Expedition to the Headwaters of the Jauru and Juruena in the Year 1910/, Baessler-Archiv., Vol. IV, No. 4/5, 1914, pp. 214 and 215.

271. Nord. 2, pp. 174-176.

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Loom and Other Implements for Weaving, from the Collection

I. A. 500. Wooden bodkin for arranging the warp threads (Chiriguano). Length 20.5 cm. (Fig. 91a.)

I. A. 513. Reel (Chiriguano). Length 25 cm. (Fig. 91f.)

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I. A. 741. Loom (Izozó). Height 1.19 m. Length of the upper horizontal bar 56 cm. Length of the lower horizontal bar 57 cm. Height of the warp 83 cm. Width of the warp 2[illegible] cm. Length of the shuttle 28 cm. Length of the two swords for weaving 44.5 and 41.5 cm. (Fig. 104.)

I. A. 727. Shuttle (Izozó). Lgth. 33.3 cm. (Fig. 91d.)
I. A. 728. " " " 27 cm. (Fig. 91e.)
I. A. 671. Sword for weaving " " 38 cm.
I. A. 672. " " " " " 45 cm.
I. A. 673. " " "" " " 30 cm. (Fig. 91c.)

Chané SF8
Izozo
Paressi SP19

/66 cont./

CE 286 126 I. A. 674. Bodkin for arranging the warp threads (Izozó). Lgth. 30 cm. (Fig. 91b.)

I. A. 742. Sword for weaving (Izozó). Length 123 cm.

I. A. 743. " " " " " 128 cm.

C [286] Before describing the Izozó loom mentioned in the preceding list and shown in Figure 104, we must emphasize that in this case we are dealing with a very small one. Ordinarily Izozó and Chiriguano looms are considerably larger, as has already been shown by the length and width of their fabrics. But I had to be content with a small one, because most of the larger Izozó looms were mounted on trees, a vertical post of the loom being formed by a tree trunk, and because at the beginning of my trip I was unable to carry objects too large and difficult to transport. A large Chané loom is shown in a drawing by Nordenskiöld (272).

272. Nord. 1, Fig. 123.

CE 286 As Figure 104 shows, the frame of the Izozó loom is formed by two vertical poles and two horizontal ones. The vertical poles are provided /67/ at their upper ends with forks and are set in the ground at a certain distance from each other. The upper horizontal pole is placed in the two forks of the vertical poles, and the lower horizontal is secured to them, at a short distance from the ground, by a binding.

P 286 On the Paressi-Kabichí looms the warp is made simply by rolling one thread continually around the two horizontal poles. As a result, the warp, when ready, encircles the two horizontal posts like a ring, half of which is on the front side of the loom and the other half on the back part. From the construction of a warp formed in such a way, certain conditions of the form of the fabrics made with such a loom result. If the entire warp is utilized by transforming the entire ring of the threads of the warp, by weaving, into a single piece, this fabric necessarily also has the form of a ring or of a sleeve, like, for example, Paressi-Kabichí tipoys. But when one wishes to make a flat fabric, for example,

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Izozo
Paressi SP19

/37 cont./

P 286 a band, it is necessary to leave one part of the warp threads free and to cut them at that place. The fabric formed in this way has the disadvantage that it is necessary to secure the woof at both ends in some way. C Ce 286 On the Chané-Izozó and Chiriguano looms this disadvantage is avoided by the ingenious device illustrated in the diagram shown in Figure 105. The warp on this loom is not formed in such a way that the thread which forms it is simply rolled around the two horizontal poles of the loom frame. As Figure 105 shows, a string is extended between the two vertical poles at the place where the woof is to start. The thread which forms the warp first passes this extended string, passes the lower horizontal pole and then to the upper horizontal pole, again passes to the extended thread, going around it and returning to the upper horizontal pole, and thus as before until, after having already once bound the extended thread, it is fixed into the weave. Also in this case the prepared warp forms a ring, and thus the Chiriguano and Chané can manufacture with their loom, like the Paressi-Kabichí, fabrics in the form of a sleeve without a seam, of which the tipoy, so common among the women, is an example. But, as the diagram also shows, such a ring can be opened at will by removing the extended string, the result being a flat fabric whose four edges are secured by the manipulation of the same weaving operation. From the fact that the threads of the fringes of the Chiriguano and Izozó fajas end in loops, it follows also that the fajas of these Indians were woven with such a loom provided with the extended string, which was later removed.

P Ce 286 Instead of the small stick that the Paressi-Kabichí pass between the odd and even threads of the warp in order to arrange its "normal formation" so that the even threads are below and the odd threads are above, or vice versa, Izozó looms have a twisted string of caraguata fibers which passes through the warp in the same way and is secured at both ends to the vertical poles of the loom.

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Paressi SP19

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In order to be able to form easily by a single manipulation the second formation of the warp threads, in which the even threads, which were below in the normal formation are brought up, passing the odd threads, the mechanism represented by the diagram in Figure 106 is constructed. As this figure shows, this mechanism consists of small loops of cotton thread which encircle the even threads of the warp and are tied to one another. This Izozó mechanism is different from the corresponding one of the Paressi-Kabichí loom, in that it is not provided, like the latter, with a small stick which serves to join the aforementioned loops to one another.

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286

/68/ By pulling the warp its position can be varied so that the part of the warp which is being worked is always at the proper height and on the front side of the loom. This can also be effected by moving the lower horizontal pole of the loom frame, which the warp threads are always pulling.

In order to be able to pass the woof thread alternately through the two divisions of the warp threads formed by the string and loops mentioned in the foregoing, these divisions are opened by means of a kind of wooden sword, of which the collection has five specimens in addition to the two which go with the loom. Two of these measure more than a meter, since they are intended for working with much larger looms than the one shown in Figure 104. This implement at the same time is used to fix the woof thread to the finished part of the woven material after it has passed through the warp.

The shuttle, by means of which the woof thread is passed through the two divisions of the warp threads alternately from left to right and from right to left, consists of a simple little stick on which the thread is wrapped. In the list of objects in the collection, two specimens of such shuttles from the Izozó are mentioned, in addition to the one which belongs to the loom. See Figures 91 d and e.

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In addition to these implements I acquired two others in the form of a bodkin and made of wood, which are used to arrange the warp threads. One of these is from the Chiriguano, and the other from the Izozó. Combs, which were used by the ancient Peruvian for this purpose, are not used by the Chiriguano or the Chané.

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C Ce 286 174 177

In addition to this usual type of loom, there can also be found among the Chané and Chiriguano other special types which correspond to the ancient Peruvian types of looms for weaving bands. The fact that the mechanism of these looms makes possible the formation of more divisions of the warp threads, makes more variations in the ornamentation possible. Nordenskiöld shows such a Chiriguano loom in a drawing (273). No doubt this kind of loom is a product of the influence of the culture of the ancient Peruvians.

C Ce 286

For different purposes, very different weavings, most of which have already been mentioned in the chapter on clothing, can be made with a loom provided with a warp in the form of a ring as described above. With regard to the measurements of these fabrics, I refer the reader to what I have already said in this respect. The material of all of these woven fabrics consists of cotton or wool threads.

C Ce 291 286 126

Woven Goods Made on the Loom Provided with a Warp in the Form of a Ring, from the Collection

1. Tipoys. I.A. 820, 832, and 838 (Izozó) (I.A. 820, Fig. 114).
2. Ponchos. I.A. 423-427 (Chiriguano) (I.A. 426, Fig. 118).
   I.A. 808-810, 812-815, 819, 823-825, 830, 831, 833-836 (Izozó) (I.A. 823, Fig. 117).
3. Mantas. I.A. 585 (Chiriguano).
   I.A. 816-818, 825-829 (Izozó) (I.A. 818, Fig. 120).

Ce 301 126 286

4. Bands of cotton for men's hair. I.A. 653-660 (Izozó) (I.A. 653, Figs. 30b and 108; I.A. 655, Figs. 30c and 109; I.A. 656, Figs. 30d and 110; I.A. 660, Figs. 30a and 107).

/Plates XXVIII-XXXI appear here./

/69/

Ce 301 126

5. Bands of human hair for men's hair. I.A. 739 and 765 (Izozó) (I.A. 739, Figs. 31 and 111).

[Text continues on p. 180]

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273. Nord. 2, Fig. 55, N. 4.

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Plate XXVIII

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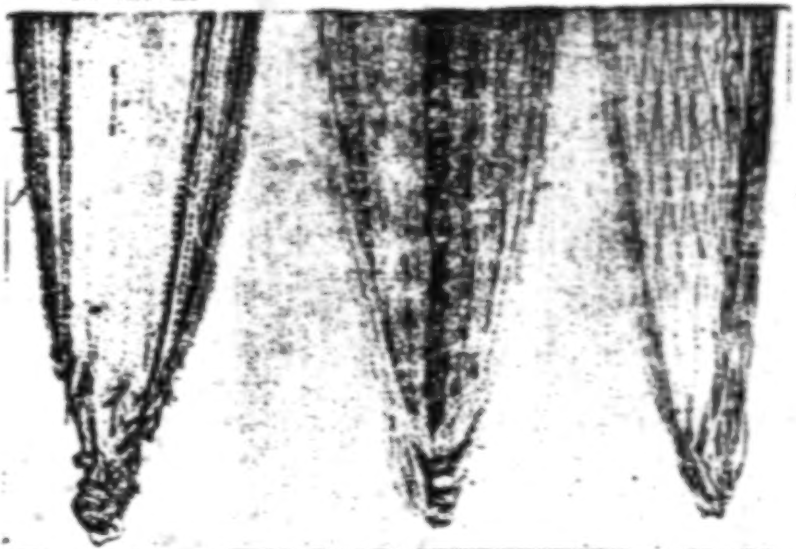

Fig. 102

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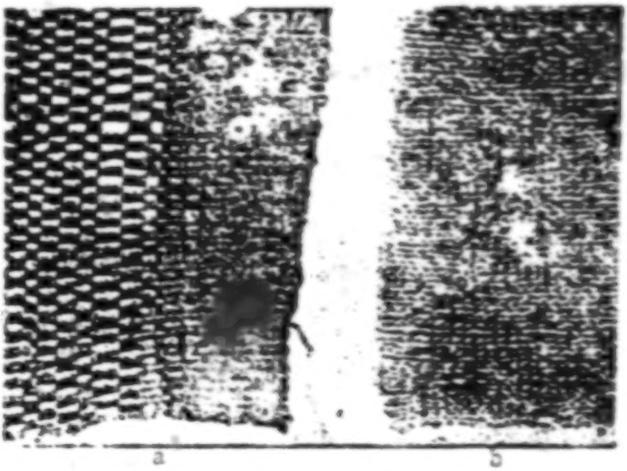

Fig. 103

/The captions appear on p. 175./

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Izozo

/Captions for Plate XXVIII/

Plate XXVIII

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Fig. 101. Hammocks:
a (I. A. 450), hammock of wool, woven (Chiriguano), length 2.85 m.;
b (I. A. 448), hammock of wool, plaited (Chiriguano), length 2.60 m.;
c (I. A. 360), hammock of caraguata, made with netting technique (Izozó), length 3.20 m.

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Fig. 102. Saddle covers (Izozó):
a (I. A. 843), woven saddle cover, length 1.42 m., width 0.62 m.
b (I. A. 844), saddle cover plaited with "double thread," length 1.21 m., width 0.57 m.

8: Schmidt--176 E-5 (1935) 1938 SF10 Chiriguano

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Izozo

Plate XXIX

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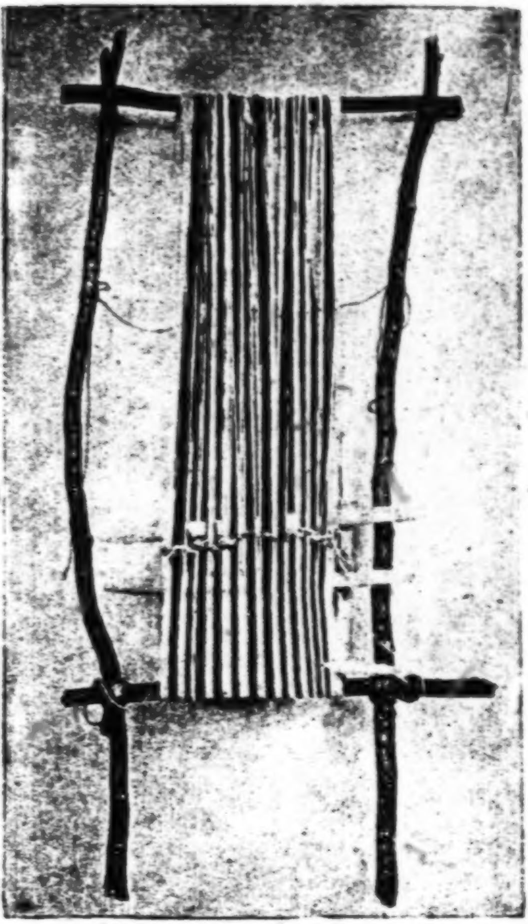

Fig. 104

(I.A. 741.) Izozó loom. Height 1.19 m.

8: Schmidt--177 E-5 (1935) 1938 SF10 Chiriguanc SF10

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Plate XXX

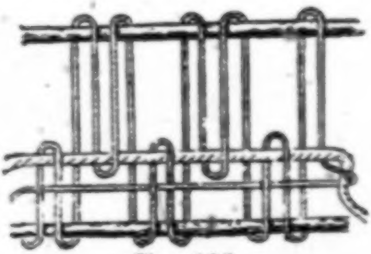

Fig. 105

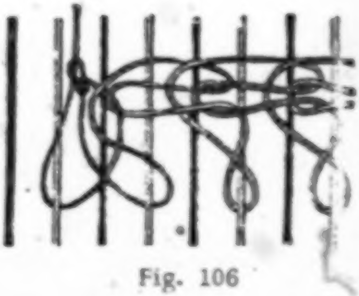

Fig. 106

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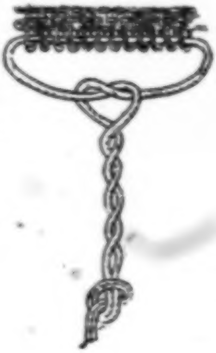

Fig. 107

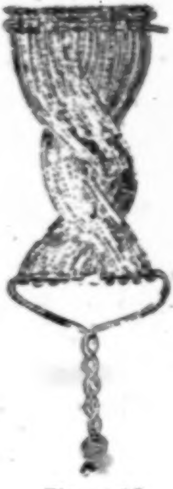

Fig. 108

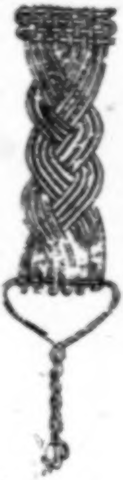

Fig. 109

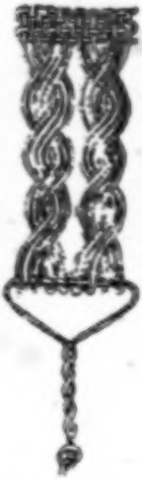

Fig. 110

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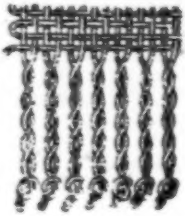

Fig. 111

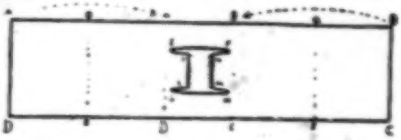

Fig. 112

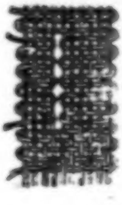

Fig. 113

/The captions appear on p. 179./

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Plate XXXI

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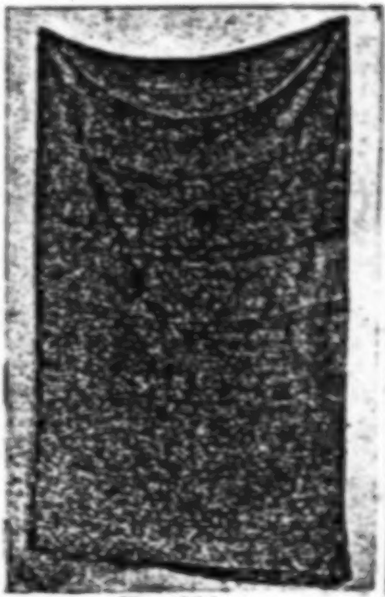

Fig. 114

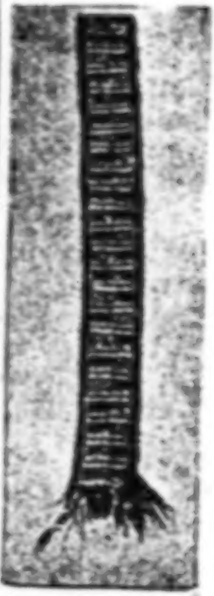

Fig. 115

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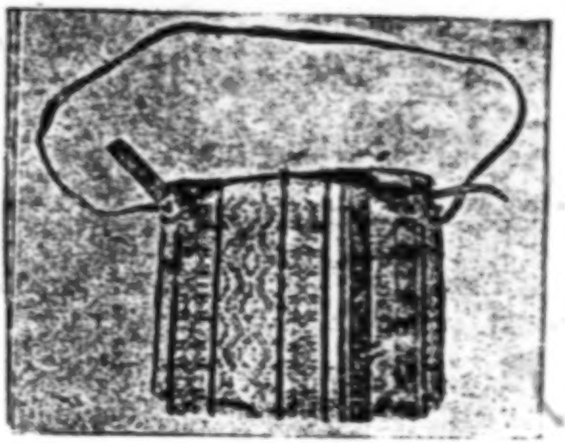

Fig. 116

/The captions appears on p. 179./

8: Schmidt--179   E-5   (1935) 1938   SF10 Chiriguano

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/Captions for Plates XXX and XXXI/

286 Plate XXX. Diagrams to illustrate the weaving technique.

Fig. 105. Diagram to illustrate the arrangement of the warp threads on the loom (Izozó).

Fig. 106. The mechanism for making the divisions between the odd and even warp threads on the loom. I. A. 741 (Izozó).

301 286 Figs. 107-110. Ends of cotton bands for men's hair (Izozó): Fig. 107 (I. A. 660); Fig. 108 (I. A. 653); Fig. 109 (I. A. 655); Fig. 110 (I. A. 656).

Fig. 111. (I. A. 739) Men's hair band woven out of human hair.

286 415 Fig. 112. (I. A. 445) Diagram to illustrate the making of the double bags.

Fig. 113. Diagram to illustrate the technique for making slits in the fabrics.

286 Plate XXXI. Woven goods of the Izozó.

[291] Fig. 114. (I. A. 820) "Tipoy," women's garment, of cotton, length 1.26 m.

[531] Fig. 115. (I. A. 738) Band woven on a special loom, of wool, length 1.30 m., width 3.7 cm.

[415] [531] Fig. 116. (I. A. 737) Bag woven on a special loom, of wool, height 21 cm.

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6. Fajas. I. A. 429-441 (Chiriguano) (I. A. 423, Figs. 119b and 120; I. A. 430, Fig. 124; I. A. 436, Figs. 119a and 121).
I. A. 803-807 (Izozó) (I. A. 803, Figs. 119c and 122).

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7. Saddle covers.
I. A. 842 (Izozó). Of wool. Length 0.69 m. Width 0.67 m.
I. A. 843 " " " 1.42 m. " 0.62 m. (Figs. 103a and 126.)

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8. Carrying bag (Chiriguano). Of wool. Length 1.07 m. Width 0.45 m. (Fig. 131a.)

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9. Double bags for carrying loads on asses or horses.

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I. A. 445.	(Chirig.)	Wool.	Entire lgth.	92 cm.	Width	37 cm.	(Figs. 115 and 131b.)
I. A. 811.	(Izozó)	Wool.	Entire lgth.	93 cm.	Width	46.5 cm.	(Fig. 132.)
I. A. 821.	"	Cotton.	" "	94 cm.	"	40 cm.	
I. A. 822.	"	"	" "	108 cm.	"	36 cm.	
I. A. 839.	"	"	" "	97 cm.	"	35 cm.	
I. A. 840.	"	"	" "	104 cm.	"	36 cm.	
I. A. 841.	"	Wool	" "	92 cm.	"	46 cm.	

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Of the three tipoys in the collection acquired from the Izozó, one (I. A. 820) consists of a fabric in the form of a sleeve made with the warp in this form. The woolen tipoy (I. A. 832) was lengthened by sewing together two such woven pieces, one beside the other. The structure of the weaving clearly shows the thread which was extended between the two vertical poles of the loom before making the warp, and which remained in the cloth. Tipoy I. A. 838 is not typical and consists of a flat piece of weaving whose two facing edges were sewed together.

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With regard to the making of ponchos, we must mention that those of the Chiriguano consist of two pieces of woven material sewed to each other in the direction of the slit of the poncho, while Izozó ponchos most often consist of a single piece of weaving made across the entire width of the loom and therefore do not show a seam in the middle part such as Chiriguano ponchos show. From the stiff edges in the direction of the woof, it can clearly be seen that the special mechanism

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/69 cont./

CC 291 286 of the Chiriguano and the Chané-Izozó, which consists of the thread extended between the two vertical poles of the loom, was used. After finishing the work of weaving, the thread was taken out of the woven piece to transform it into a flat piece.

The slit in the ponchos woven in one piece is not made by cutting the cloth after it has been finished, but is formed in the very act of weaving. As the diagram represented in Figure 113 shows, the slit is made in such a way that in the part of the warp in which the slit is made the woof thread does not pass through the entire warp, but returns when it has passed half of it, to pass through the following division of the warp threads in the opposite direction. The result of this method of weaving is that the slit of the poncho is provided with a firm edge. We must still mention the peculiarity of the Chiriguano and Izozó ponchos, whose four sides are folded and sewed to the rest of the weaving. For that reason the ponchos of these Indians have round edges. Cf. Figures 117 and 118 /see p.187/.

ce 291 286 Of the Izozó mantas, only one consists of two pieces of weaving sewed together. Some others have been formed from ponchos by sewing up their slits.

ce 301 286 /70/ The men's hair bands also clearly show that they were woven on a loom like the one which we have described above and which was fitted with the thread extended between the two vertical poles of the loom. Except for only one of these bands (I. A. 659), the fringes of the rest of them all end in loops of thread in such a way that it is not possible that the warp, previously in the shape of a ring, might have later been cut. The loops of free thread at the two ends of these bands can be secured in a very different manner, as is shown by the diagrams in Figures 107-110.

The manufacture of the two men's hair bands woven of human hair and similar in form to the fajas is the same as that of the cotton bands, in addition to which the loops of the free threads are secured in a simpler manner. Cf. the diagram shown in Figure 111 /see p. 177/.

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The manufacture of the fajas of wool or cotton is like that of the men's hair bands woven of human hair. The manner of securing the loops of the free threads at the end of the fajas is also in general the same, as Figure 111 shows, except only that the fringes consist of more than one of these loops, with the result that they form thicker, twisted threads, which end in knots.

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Of the two saddle covers, one (I. A. 842) is woven in the ordinary fashion of mantas, while the other, I. A. 843, shows in its manufacture the peculiarity that each time two woof threads pass through the same division of warp threads this is done in such a way that one of these two woof threads passes through the divition from left to right, and the other from right to left. The diagram shown in Figure 126 shows the course of this double woof thread and also shows how in this way they manage to make the edge of the piece of weaving firmer than it would have been had the two woof threads passed through the division of warp threads in the same direction.

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The weaving from which the Chiriguano bag I. A. 444 was made was not made up of a fabric in the form of a manta. By sewing up the two narrower sides, there was first made a piece in the form of a sleeve, from which the bag was made by sewing the edges together, leaving only one part open for the opening.

The double bags mentioned above are made of a flat fabric of either wool or cotton thread, by folding over the two ends and sewing the edges together. The diagram shown in Figure 112 shows the flat fabric before the edges are sewed. All the outside edges of the material are secured by the process of weaving itself, since the fabric is first made in the form of a sleeve and then changed into a flat piece by removing the thread which was extended between the two vertical poles of the loom. Also, the edges, indicated in the diagram by EF, GH, EI, GL, FK, and HM, are secured by the weaving process, which was managed by passing the woof thread through the divisions of the warp, only by parts in the way we know for making the slit in ponchos. Only in those places indicated on the diagram as JL and MK are the warp threads cut in such a way that these sides of the piece

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of weaving are not secured by the weaving process itself. In order to change the piece of weaving described in the foregoing into the double bag, its two ends are folded over at the dotted lines in the diagram, with the result that points A, B, C, and D are placed on top of points A/, B/, C/, and D/. Then the edges which are placed one on top of the other (OA/, OB/, PD/, and RC/) /71/ are sewed together. The parts EILG and FKMH are doubled in the opposite direction to form the tops of the double bag.

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In accordance with the simple mechanism of the loom with which the Chiriguano and the Chané-Izoző make their textiles, the possibilities of producing variations in the ornamentation of these are very limited. The variations in ornamentation of the weavings of the Chaco tribes, such as, in particular, those of the Churupí /Chulupí/, which consist of frets, zigzags, rhombuses, and many other figures, are not found among the ornamentations of the weavings of the Chiriguano and Chané.

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[177]
Because today the woven goods of these Indians, especially the fajas and the ponchos, are often woven with imported thread or, if they are woven with native wool or cotton thread, these are often dyed with imported dyes, the different colors of the ornamentation on the surface of these weavings have no ethnological importance.

The ornamentation is formed exclusively by the warp threads, due to the fact that the distance between the warp threads is much less than the distance between the wax threads, so that the meshes of the woof disappear completely under those of the warp. Because, outside of that, the formation of the divisions of the warp threads is done by a single mechanism of loops, it can consist only of raising and lowering alternately the even and odd warp threads, for which reason the ornamentation still cannot be influenced by the process of the operation of weaving itself. The structure of this kind of weaving is necessarily such that in the direction of the woof thread, thus vertical to the direction of the warp threads, a row of the meshes formed by the odd warp threads is alternated each time with a row of the meshes formed by the even warp threads. Thus

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/71, cont./

In Figures 120-124 the first, third, fifth, seventh, ninth, and eleventh horizontal rows are formed by the meshes of the odd warp threads, numbers 1, 3, 5, and so forth, while the second, fourth, sixth, eighth, and tenth horizontal rows are formed by the meshes of the even threads of the warp, and so forth. The result of this is that all of those odd rows in the direction of the woof are like one another in structure and color, and similarly all of the even rows are like one another in the direction of the woof. Therefore the ornamentation of these weavings can only consist of continual repetition of the ornamentation set by the first two rows in the direction of the woof.

These considerations show that the only possibility of providing these weavings with different ornamentation is by varying the color of the warp threads.

The simplest ornamentation that can be done in this manner consists of simple stripes in the longitudinal direction, that is, in the direction of the warp threads. The unfinished weaving on the loom shown in Figure 104 and the manta L.A. 818 have such a decoration of simple stripes. Figure 120 shows that these stripes in the longitudinal direction are produced in such a way that at certain intervals the color of the warp threads is changed. In addition to these longitudinal stripes and in varying combinations with them, transverse stripes appear as ornamentation in these weavings. Cf. Figures 121-124 /see p. 188/. These are produced in such a way that two threads of different color alternate each time among the warp threads. Thus it comes about that the row of meshes formed by the odd warp threads are different in color from the row of meshes formed by the even threads of the warp. If a single thread of the warp has a color different /72/ from the color of the adjacent threads, dots appear in the ornamentation, as Figure 121 shows.

From the above explanations it can be seen that all the ornamentation in these weavings of the Chiriguano and the Chané-Izosó is produced exclusively by the arrangement of warp threads of different colors. The process of weaving is absolutely indifferent to the ornamentation set in the beginning by the arrangement of the warp threads.

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/72 cont./

Weavings Made on a Special Loom, from the Collection

I.A. 727. Bag (locoó). Wool. Hgt. 21 cm. Width 22 cm. (Fig. 116.)
I.A. 726. Band " " Length 1.3 cm. " 3.7 cm. (Fig. 115.)

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Because of the contacts that the Chiriguano and the Chané had for a long time with the culture of the ancient Peruvians, it is surprising that the highly developed technique of the latter should not have had more influence on the weaving technique of these Indians. The fact is that the Chiriguano even today make most of their weavings with the typical loom of the Arauco and with the warp in the form of a ring, which they doubtless received from the Chané. Besides these ordinary looms, the forms of looms that they received directly or indirectly from the technique of the ancient Peruvians are of little importance.

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The two locoó weavings mentioned above, and in particular bag I.A. 727, are weavings that are exactly like the weavings produced to this day by the Quichua /Quechua/ and also the typical weavings of the last period of the Inca Empire.

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In order to explain the appearance of such weavings among the Chané of the Parapití, we have an interesting observation by Nordenskiöld. The Indians told that author that they had learned that technique of weaving directly from a Quichua woman who had emigrated into their territory (274).

274. Nord. 7, p. 178.

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[199]

The Chiriguano loom for weaving bands and shown in a drawing by Nordenskiöld shows that the Chiriguano also learned to weave in the way of the ancient Peruvians (273) /fn. 273, which appears on p. 172, reads: Nord. 7, Fig. 55, N. 4./. In contrast to the manner of weaving described in the preceding, these weavings are made in such a way that the thread of the woof passes alternately through the threads of the front side of the warp and those of the back side. In addition to this, a double mechanism for the divisions of the warp threads makes possible many more variations in the ornamentation.

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/72 cont./

Weavings Made without a Special Mechanism for Making the Divisions of the Threads of the Warp, from the Collection

I. A. 450. Hammock (Chirig.) of wool. Lgth 2.85 m. Width 0.60 m. (Fig. 102a.)

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I. A. 768. Carrying net provided with a woven caraguata band (Izozó). Length of band 49 cm. (Figs. 125 and 133.)

I. A. 802. Band for a carrying net (Izozó). Caraguata. Length 49 cm.

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With regard to their exterior structure too, the bands with which many of the carrying nets (of the Izozó and some of the Chiriguano ones) and one Chiriguano hammock are provided are similar to the weavings. But these /Plates XXXII-XXXV appear here/ /73/ objects are made without any special mechanism for making the divisions of the warp threads.

Figure 125 shows the structure of the band of the net I. A. 768. (Cf. Fig. 133 /see p. 200/.) The diagram shows the way in which these bands are made. First the longitudinal threads are stretched in a way similar to the manner of stretching the warp threads of common weavings between the horizontal poles of the frame of the loom, but without using the special thread extended between the two vertical poles of the loom. Then they pass a transverse thread, which corresponds to the woof thread of common weavings, through the two rows of longitudinal threads alternately from the right to the left and from the left to the right,--in such a way that this thread is left alternately under one thread of the back row of longitudinal threads and on top of one thread of the front row. Thus the manufacture of these bands and of hammock I. A. 450 is different from that of common weavings principally in the fact that the woof thread passes simultaneously through the threads of the front side and of the back side of the warp. Sundry irregularities in the course of the threads of the warp show that weavings of this kind have been made without using a mechanism for making the divisions of the warp threads.

8: Schmidt--187 E-5 (1935) 1938 SF10 Chiriguano SF10
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Plate XXXII

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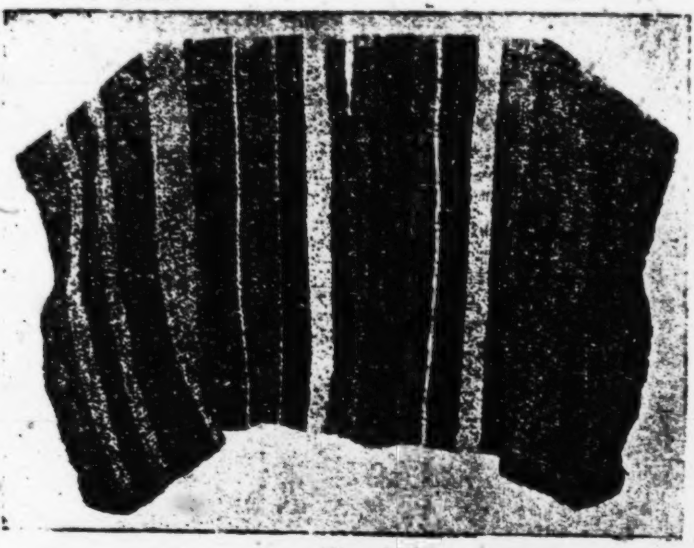

Fig. 117

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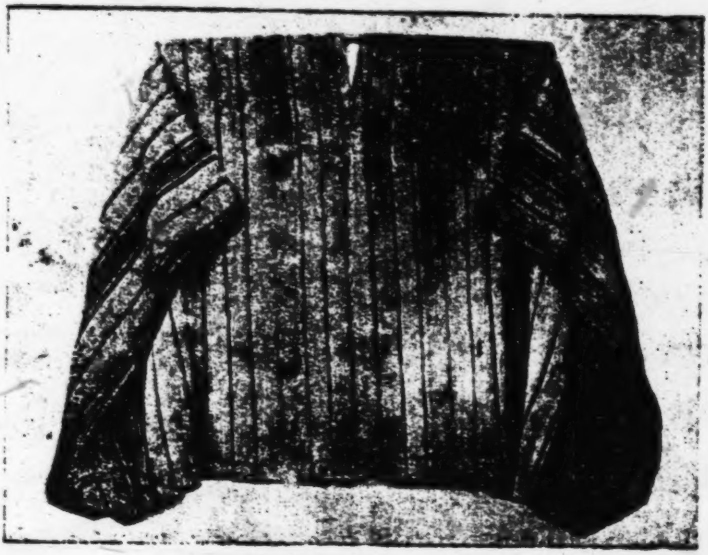

Fig. 118

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Plate XXXIII

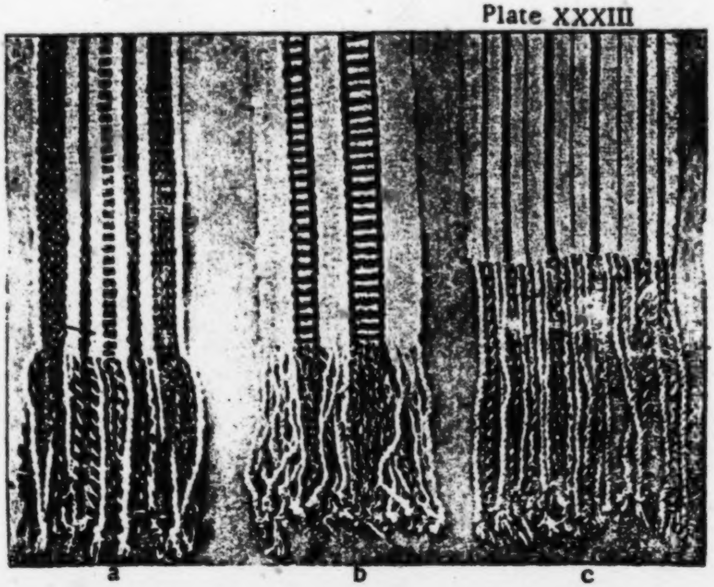

Fig. 119

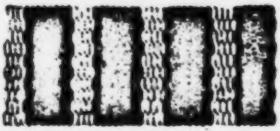

Fig. 120

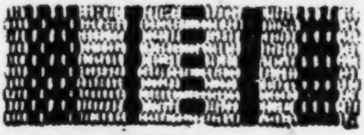

Fig. 121

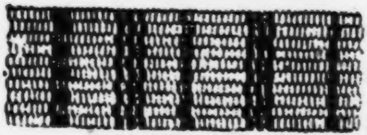

Fig. 122

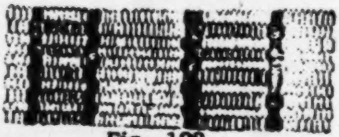

Fig. 123

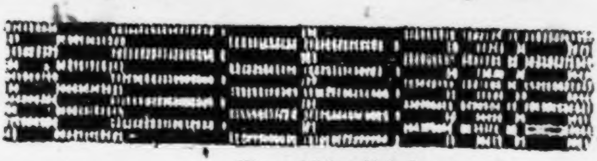

Fig. 124

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/Captions for Plates XXXII and XXXIII/

Plate XXXII. Woven ponchos, of wool.

Fig. 117. (I. A. 823) (Izozó) Width 1.30 m. Length 1.40 m.
Fig. 118. (I. A. 426) (Chiriguano) Width 1.39 m. Length 1.68 m.

Plate XXXIII.

Fig. 119. Woven *fajas*:
- a (I. A. 436), of wool (Chiriguano), length 2.86 m., width 9 cm.;
- b (I. A. 428), of wool (Chiriguano), length 2.58 m., width 11.5 cm.;
- c (I. A. 803), of cotton (Izozó), length 2.58 m., width 15 cm.

Fig. 120. Ornamentation of the manta I. A. 818 (Izozó).
Fig. 121. Ornamentation of the *faja* I. A. 436 (Chiriguano).
Fig. 122. Ornamentation of the *faja* I. A. 803 (Izozó).
Fig. 123. Ornamentation of the *faja* I. A. 436 (Chiriguano).
Fig. 124. Ornamentation of the *faja* I. A. 430 (Chiriguano).

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Plate XXXIV

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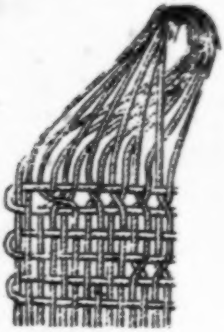

Fig. 125

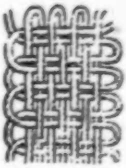

Fig. 126

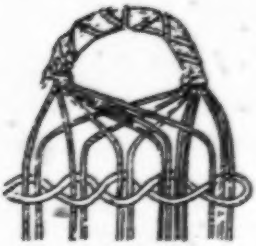

Fig. 127

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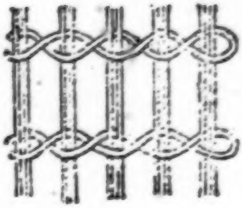

Fig. 128

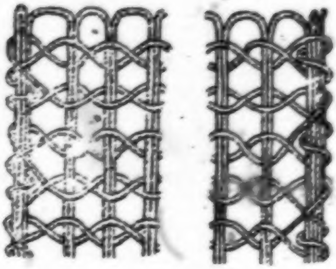

Fig. 129

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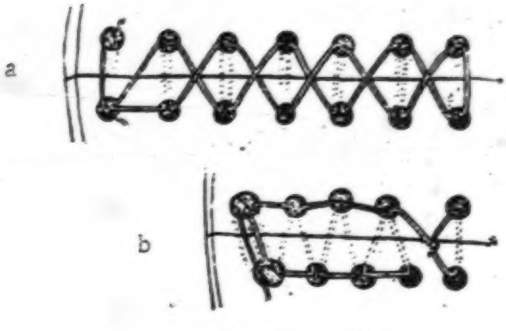

Fig. 130

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Plate XXXV

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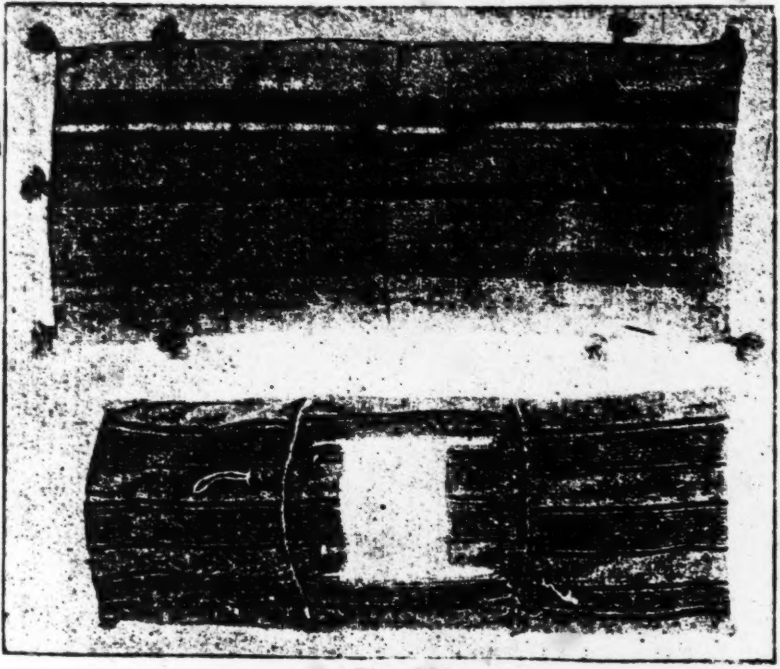

Fig. 131

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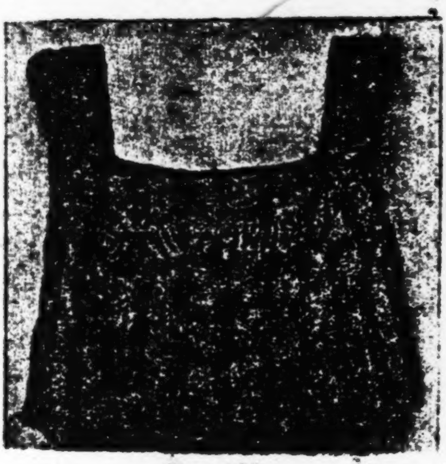

Fig. 132

/The captions are on p. 192./

8: Schmidt--192 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
Izozo

Ce 286 /Plate XXXIV. Diagrams to illustrate the techniques of weaving, plaiting with "double thread," and sewing.

Fig. 125. Diagram to illustrate the technique of weaving, from the band of the net for carrying loads I. A. 768. Cf. Fig. 133 /see p. 200/ (Izozó).

Fig. 126. Diagram to illustrate the technique of weaving, from the saddle cover I. A. 843 (Izozó). Cf. Fig. 103a /see p. 174/

C 286 Fig. 127. Diagram to illustrate the technique of plaiting with "double thread," from the hammock I. A. 448 (Chiriguano). Cf. Fig. 102b /see p. 174/.

Fig. 128. Diagram to illustrate the technique of plaiting with "double thread," from the hammock I. A. 449 (Chiriguano).

Ce 286 Fig. 129. Diagram to illustrate the technique of plaiting with "double thread," from the saddle cover I. A. 844 (Izozó). Cf. Fig. 103b /see p. 174/.

Ce 284 415 Fig. 130. Diagram to illustrate the technique of sewing two cuyas:
a (I. A. 666) (Izozó);
b (I. A. 667) (Izozó).

C 531 415 286 [482] [492] Plate XXXV. Woven bags, of wool.

Fig. 131. a (I. A. 444) Woolen bag for carrying loads (Chiriguano), length 1.07 m., width 0.45 m.
b (I. A. 445) Double bag for loading horses (Chiriguano), entire length 92 cm., width 37 cm.

Ce 415 286 492 531 Fig. 132. (I. A. 811) Double bag for loading horses (Izozó), entire length 93 cm., width 46.5 cm.

Chane SF8
Izozo

/73 cont./

The Technique of Making Nets

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The technique of making nets is widespread among the Chiriguano and Chané and is used to make various objects, such as fishnets, hammocks, nets for carrying burdens, bags, and slings. The material used for making these nets generally consists of threads made of caraguata fibers. In the collection there are two Chiriguano burden-carrying nets made of woolen threads and another one made of strips of cowhide.

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The common technique of making nets among the Chiriguano and the Chané is the technique called "Knotentechnik," in German, using the knot called the reef knot in English. Figure 138, a and b, shows such a "reef knot," and Figure 142 shows the technique of making nets with this "reef knot." According to Nordenskiöld (275), the Chiriguano and Chané use small rectangular boards for making their nets, like those with which we are familiar from many other tribes of South America. Unfortunately, I did not acquire such a board from the Chiriguano or from the Izozó. By continually wrapping the first board with a thread the simple loops which are shown in the diagram (Figure 142) in the upper row are formed. The thread, after having reached the other end of the board, are wrapped continuously in the opposite direction around a second board, being connected each time, with a knot, with the loops of the thread wrapped around the first board. If the thread has been looped in the manner described, until it gets to the first loop of the first row, the first board can be removed to serve in the formation of the third row of the meshes of the net, which is made in the same way as the second, but in the opposite direction. It is clear that nets made with this technique, in their simplest and least complicated form, must have a rectangular form, and this form is typical of all of the nets of the Chiriguano and Izozó, while various other South American tribes, for example, the Bakairí /Bacairi/, who formerly lived on the tributaries of the Xingú River (in Mato Grosso), make triangular nets.

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275. Nord. 3, p. 207.

Chane SF8
Izozo

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Nets of the Collection That Are Made with the Technique Called "Knotentechnik" in German, Using the Knot Called Reef Knot in English

I.A. 360. Hammock (276) (Chané of the Parapití). Caraguata.

276. Gift of Mr. Teodoro Rojas.

Length 3.20 m. (Fig. 102c.)
I.A. 766. Hammock (Izozó). Caraguata. Length 1.80 m.
C I.A. 794. " " " " 2.70 m.
Ce I.A. 446. Net for carrying loads (Chiriguano). Wool. Lgth 1.05 m.
286 I.A. 447. " " " " " " " 0.75 m.
415 I.A. 561-564, 567, 569-571. Nets for carrying loads (Chiriguano).
482 Caraguata. Length between 1.50 and 0.50 m.
126 (I.A. 567, Figs. 134 and 143; I.A. 568, Fig. 144.)
I.A. 767-787; 790-792. Nets for carrying loads (Izozó). Caraguata. Length 1.60 m. and 0.65 m. (I.A. 768, Figs. 133 and 142; I.A. 772, Fig. 135.)
Ce I.A. 785. Bag (Izozó). Caraguata. Length 0.82 m. Height 0.48 m.
415 I.A. 788 " " " " 0.62 m. " 0.62 m.
286 (Fig. 136.)
126 I.A. 793. Quadrangular net (Izozó). Caraguata. Length 0.90 m.
Ce I.A. 764. Implement for fishing with net (Izozó). Length 73.5 cm.
[227] (Fig. 39.)
I.A. 795-801. Nets for implements such as I.A. 764 (Izozó). Caraguata.
C I.A. 508. Sling (Chiriguano). Caraguata. Length 15 cm.
411 I.A. 509. " " " " 14 cm.
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C Ce 286 352 227 136

From the large size of the mesh of nets I.A. 360, 766, and 794, it follows that they are hammocks. Because in Chiriguano and Chané territory there are generally no fish except small ones, nets for fishing must have considerably smaller meshes.

C Ce 415 286 482 [283]

Of the Chiriguano nets for carrying loads, two are made of wool and one of these has a band like most such nets from the Izozó. The rest of these nets from the Chiriguano and the Izozó are made of caraguata thread. Some of them haye a rather small mesh, but among those of the Izozo those with big mesh are the rule.

Chane SF8
Izozo

/74 cont./

000 Ce 286 415 482 small mesh, but among those of the Izozó those with big mesh are the rule. Thus the mesh of the Izozó nets used for carrying the large water jars is also very large. Most of these Izozó nets have a special band that goes over the forehead of the bearer. The structure of these bands, which are made of caraguata, wool, or cotton, have already been described by us in the chapter on weavings. Cf. Figure 133 /see p. 200/ and the diagram shown in Figure 125 /see p. 190/.

Ce 286 415 [126] The collection has two net bags from the Izozó which are made in such a way that the whole rectangular net is folded in the middle and the pieces which are on top of one another are laced together with a thread on the two longitudinal sides.

Ce 286 227 In the way described in the foregoing they also make the net of the fishing implement I. A. 764 described in the chapter on fishing and shown in Figure 39. Because this implement is used to catch small fish, the net has very small mesh. Ce [411] [224] The slings described among the hunting implements are also made in the same way.

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C 286 415 482 [126]

Burden-carrying Net Made by the Technique Called "Knotentechnik" in German, But Using the Knot Called "Sheet Knot" in English from the Collection

I. A. 573. Net for carrying loads (Chiriguano). Strips of animal hide. Length 0.85 m.

C [284] This net is made like the nets described in the foregoing, made of knots, but the knot used is the type called "sheet knot" in English and "Schotenstich" in German. This knot is shown in Figure 138, c and d. According to Nordenskiöld (277), the

277. Nord. 2, p. 164.

Chiriguano also have fishing nets which are made using this type of knot.

/75 cont./

286 415 482 (126)

Nets in the Collection That Are Made with Loops and without the Use of Knots

I. A. 555-566.	Net for carrying loads (Chirig.). Lgth.	0.93 m. 1.80 m.
I. A. 567.	" " " " " "	1.15 m. (Figs. 134 and 143.)
I. A. 568.	" " " " " "	1.20 m. (Fig. 144.)

286 284 415 482 From the Chiriguano I obtained several nets for carrying burdens, which are made without using knots, by connecting the thread in the fashion illustrated by Figures 143 and 144 and which is common among many tribes of the Chaco, as happens among the Tapieté, Matako /Mataco/, Toba, Chorote /Choroti/, and Churupí /Chulupi/.

The great number of nets that I acquired from the Izozó are made with knots without exception, and we must therefore assume that these Indians are not familiar with or do not use the technique of making nets with simple loops and without applying knots, and that this technique, called "Schlingtechnik" in German, is used only by the Chiriguano or a part of them. Nordenskiöld does not mention this technique among the Chiriguano, and in the synoptic outline in which the several techniques of making nets are illustrated the Chiriguano are not mentioned in Column 5 among the Indian tribes which use the technique of making nets without applying knots. Of the burden-carrying nets made of caraguata thread that I acquired from the Chiriguano, ten are made without knots being applied, by the technique called "Schlingtechnik," and only seven by applying knots by the technique called "Knotentechnik." We can there- 286 284 114 177 fore assume that this part of the Chiriguano at least uses the technique of making nets without applying knots, although this opinion is contrary to that of Nordenskiöld, who says (278) that all of the nets made by this technique found among the Chiriguano and the Chané were acquired from the Chaco Indians.

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278. Nord. 2, p. 116.

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/75 cont./

Net Bags Made by the Toba, from the Collection

I. A. 572. Bag for carrying burdens. (Found among the Chiriguano)
Length 0.70 cm.
I. A. 845. " " " " (Found among the Izozó)
Length 57 cm.

I acquired two net bags, one from the Izozó and the other from the Chiriguano, which show differences from the techniques mentioned in the foregoing. The Izozó and the Chiriguano told me that they themselves had not made these bags and that they had obtained them from the Toba.

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Sewing

With the acquisition of European clothes, naturally the sewing of these clothes to make and mend them became general among the Chiriguano and Chané. Modern sewing needles are an article eagerly sought by them today. But undoubtedly these Indians had already known the technique of sewing with a needle with an eye for a long time through their contact with the culture of the ancient Peruvians. Although the native textiles are, in most cases, made in one piece, needlework coming from other cultures is often added to the native technique of these textiles. I mentioned that a large Izozó tipoy is made of two smaller tipoys sewed together. The ponchos of the Chiriguano in Machareti are made of two pieces sewed together. The four edges of the Chiriguano and Izozó ponchos most of the time are turned and sewed to the rest of the fabric. In the making of the bags for carrying burdens, especially the double bags for loading draft horses or burros, sewing is used.

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Among the cuyas that I obtained from the Chiriguano and Izozó there are several which show breaks mended by sewing. See Figure 25a /see p. 51/. The two diagrams shown in Figure 130 a and b serve to illustrate the way in which this sewing is done, with cotton thread on the two Izozó cuyas I. A. 666 and 667, and with fine wire on the Chiriguano cuya (I. A. 460). The cuya I. A. 667 shows two such repairs done by sewing.

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The Working of Skins and Leather Tanning

The Chiriguano and Chané know the art of tanning leather, and they use for that the bark of the "Piptadenia" and other trees. No doubt they obtained the knowledge of this craft from the whites. They use not only tanned leather, but also strips of animal skin for the making of sundry objects (279), but the craft of working leather and skins is not an important one. It is said that formerly the Chiriguano, when they went hunting, wore leather clothing conforming to the European style (280). Beyond that, leather is not used for making clothing, except to make sandals (281). The men's modern custom of wearing a leather belt must be attributed to the influence of the whites. Without counting its application to the making of bridles and saddles for horses and asses, either draft or saddle animals, on which we have no data, strips cut from leather or from animal skins are used in the form of straps, principally to transport or hanging up some object. In place of the common vegetable-fiber cords, leather straps are often put on the nets for carrying burdens, on hammocks, and also on the hoops mentioned above, in which they keep things. The band of the Chiriguano net for carrying burdens I. A. 564 consists of an untanned cowhide strap. See Figure 134 /see p. 200/. The Izozó vessel I. A. 617 has a leather strap attached to its handles. The strings of the bows for shooting arrows are strips of animal skin, and the Chiriguano net I. A. 573 is made of cowhide strips.

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279. Nord. 2, p. 165.

280. Nord. 1, p. 184. Nord. 2, pp. 60, and 61. Viedma, op. cit., p. 181. Cited in Nordenskiöld.

281. Nord. 2, p. 69, Fig. 23.

/76 cont./

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[412]

On the Cooking of Meals

Most of the Chiriguano and Chané utensils used /Plates XXXVI-XXXVII appear here/ /77/ for cooking meals have already been mentioned in the preceding chapters, such as pots for cooking food and for fermenting chicha, dishes with holes in the center of the bottom for steaming maize meal, vessels for frying /fritar/ maize, wooden mortars with their pestles, and sieves. For frying /fritar/ meat or fish, the Chiriguano and Chané do not use the quadrangular or triangular stands which are so common among other South American Indians, but instead simple wooden spits (282). Also, as we have already said, the grater for grating mandioca roots is not found among these Indians.

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We have yet to mention two other utensils used by the Chiriguano and Chané for fixing their meals, the large wooden dish and the spatula for stirring foods or drinks when they are boiling or fermenting.

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Large Wooden Dishes (Platters) in the Collection

I. A. 574. (Chirig.) Lgth 0.83 m. Width 0.39 m. (Fig. 19.)
I. A. 575. " " 1 m. " 0.325 m.

Unfortunately I did not obtain data regarding the special use of these large wooden dishes which I acquired from the Chiriguano in Machareti. As Fig. 19 shows, these large wooden dishes are provided with the same handles as the smaller wooden dishes which serve as vessels for eating.

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282. Nord. 2, p. 55. Métraux I, p. 352 and Figure 22.

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Plate XXXVI

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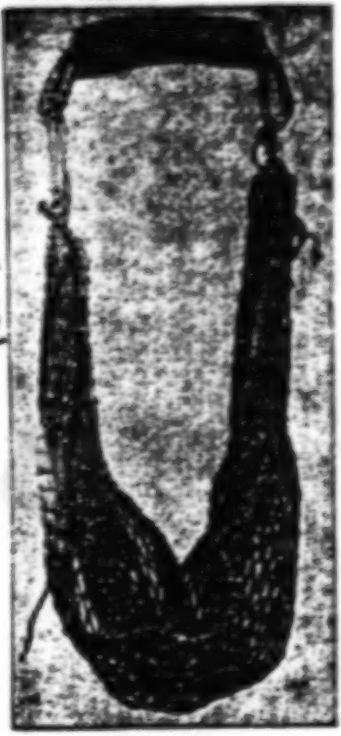

Fig. 133

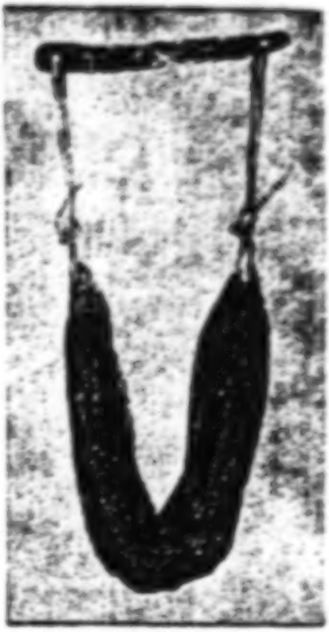

Fig. 134

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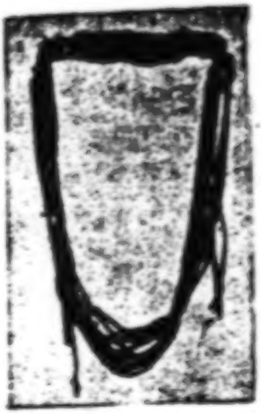

Fig. 135

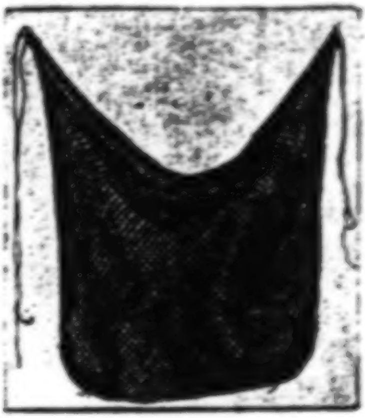

Fig. 136

/The captions are on p. 202./

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Plate XXXVII

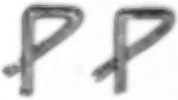

Fig. 137

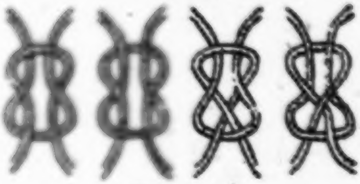

Fig. 138

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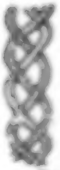

Fig. 139

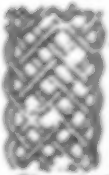

Fig. 140

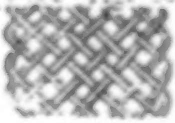

Fig. 141

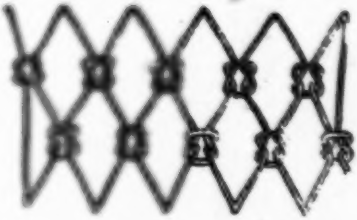

Fig. 142

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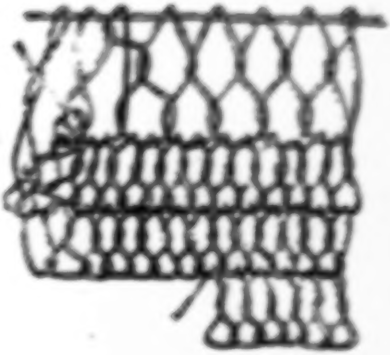

Fig. 143

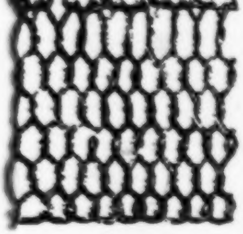

Fig. 144

/ The captions are on p. 202. /

Ce /Captions for Plates XXXVI and XXXVII/

286 415 482 Fig. 133. (I. A. 768) Net for carrying loads, made with the technique using knots (Izozó). Length 1.33 m. Cf. Figs. 125 /see p. 190/ and 142 /see p. 201/.

Ce 286 415 482 Fig. 134. (I. A. 567) Net for carrying loads, made with the technique without knots (Chiriguano). Length 1.15 m. Cf. Fig. 143 /see p. 201/.

Ce 286 415 Fig. 135. (I. A. 772) Net for carrying loads, made with the technique using knots (Izozó). Length 1.18 m.

[482] Fig. 136. (I. A. 788) Bag made with the netting technique using knots (Izozó). Height 0.62 m. Length 0.62 m.

Plate XXXVII.

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Ce 286 Fig. 137. Diagrams of twisted threads: a, twisted to the right; b, twisted to the left.

Fig. 138. Diagram of the two different knots applied in the making of nets: a and b, "reef knot"; c and d, "sheet knot."

Ce 286 Figs. 139-141. Diagrams of the plaited middle parts of three cotton bands for women's hair (Izozó): Fig. 139 (I. A. 649); Fig. 140 (I. A. 652); Fig. 141 (I. A. 646).

Fig. 142. Diagram of the technique of the net for carrying loads I. A. 768, using the knot called "reef knot" (Izozó). Cf. Fig. 133 /see p. 200/.

C 286 Fig. 143. Diagram of the technique of the net for carrying loads I. A. 567, made only with loops, without knots (Chiriguano).

Fig. 144. Diagram of the technique of the net for carrying loads I. A. 568, made only with loops, without knots (Chiriguano).

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Spatulas for Stirring Foods, Which Are in the Collection

I. A. 501.	(Chiriguano)	Length	49.5 cm.	
I. A. 509.	"	"	74.5 cm.	(Fig. 21)
I. A. 576.	"	"	114 cm.	(Fig. 20b.)
I. A. 577.	"	"	93 cm.	
I. A. 578.	"	"	62 cm.	(Fig. 20a.)
I. A. 579.	"	"	66.5 cm.	

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These wooden spatulas for stirring are used by the Chiriguano and Chané for stirring the bubbling crock of maize when it is being fermented. Some of these spatulas have decorations on their handles similar to those of the corresponding spatulas of the Guató Indians. Nordenskiöld shows in a sketch such a Chiriguano spatula with a zigzag decoration (283), and beside

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283. Nord. 2, Fig. 17 A.

it (284) another form of these utensils, from the Chiriguano,

284. Nord. 2, Fig. 17 B.

which consists of the shoulder blade of a large mammal, attached to a wooden handle (285).

285. Nord. 2, p. 55. See Métraux I. Figs. 33 and 34.

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The Making of Fermented Drinks

Concerning the making of maize chicha, that is, the national drink of the Chiriguano, Nordenskiöld says the following (286):

286. Nord. 1, p. 237.

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First the maize is /78/ ground up in large mortars, then sifted and boiled in large pots with water. A part of this mash,

/78 cont./

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293 removed from the pot, chewed up and well mixed with saliva, is then mixed back in with the rest. Then it is strained and ferments in large open pots, at moderate heat. By means of large wooden spatulas or mammals' shoulder blades fitted with wooden handles, the mash is stirred in the pot. We find a more detailed description of this process in the publication by Métraux (787).

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[1237]

787. Métraux I, pp. 365-369.

The Preservation of Foodstuffs

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Concerning the method of preserving foodstuffs, we know that the Chiriguano and Chané dry fish for future use, when fish are abundant (788). According to Niño (789), formerly meat from hunting was preserved for the great fiestas by drying it in the sun, without using salt. Even today, when a bovine animal is slaughtered, part of the meat is preserved by drying it in the sun (790).

788. Nord. 1, p. 189.

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[113]

789. Niño, F. Bernardino de: Etnografía Chiriguana. La Paz, 1912, pp. 249 and 256. According to Métraux.

790. Métraux I, p. 356.

Transport

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The Chiriguano and Chané, in contrast to the Itatines-Guarayús, do not have boats (791). Concerning means of

791. Nord. 1, p. 196.

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/78 cont./ concerning means of transport by land we do not have any evidence except through the sundry implements which serve for carrying burdens. We can assume from the form of the double bags mentioned in the chapter on weaving that they use their horses and burros to transport loads.

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The objects used to transport burdens have already been mentioned in preceding chapters. Among them the most general is the carrying net, which often has a band. By means of it burdens are carried on long trips or the fruits of the harvest are brought in from the fields to the houses, or water is brought, often from a distance, to the dwellings. The carrying net is used in such a way that the band goes across the forehead of the bearer so that the weight of the burden rests on his back (292).

292. See Nord. 2, p. 95.

Nordenskiöld has published a photograph of a woman who is carrying a load in her net (293).

293. Nord. 1, Fig. 87.

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Baskets are not used by the Chiriguano and Chané for carrying loads; they are used among these Indians only to store things. Neither is any special band used to carry infants; rather they are carried in a fold of the tipoy.

Only if water is near the house are water jugs sometimes carried on the shoulder without a net, but not on top of the head.

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This latter appears only in the cases where the Indians are directly influenced by the whites, as happens in the missions (294).

294. Nord. 2, p. 95.

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[484]

For carrying small amounts of water when traveling, these Indians also use calabashes enlaced with string, or small baked clay vessels /79/ provided with a string or a leather strap, such as, for example, the vessel I.A. 617 shown in Figure 56b.

/79 cont./

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413
We must still note that the Chiriguano and Chané transport fish in the same way as the neighboring tribes of the Chaco, by stringing them on a cord provided with a big wooden needle (295).

295. Nord. 9, p. 48.

Implements for Storing Objects

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Most of the objects that serve for storing things have also been mentioned in preceding chapters, such as the various kinds of baskets and the wooden hoops which are hung in the houses for storing sundry things in them. The net bag and the carrying net do not serve only for carrying, but also for storing things in them. Baked clay vessels are not only used for storing liquids, but are also used for storing many other things which have a special value or are old memorabilia of the family (296). Furthermore,

296. Nord. 1, p. 179.

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[237]
they put up special hooks for hanging various things in the houses. Such a hook is shown in a drawing by Nordenskiöld (297).

297. Nord. 1, p. 177 and Fig. 86.

and Métraux shows such a hook made of a deer's leg (298).

298. Métraux I, Fig. 128.

Art

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Flutes and a Whistle in the Collection

I. A. 491. Flute. "sereré" (Chirig.). Wood. Lgth. 17 cm. Width 2.7 cm. (Fig. 33b.)
I. A. 492. " " " " " 20 cm. Width 3.5 cm. (Fig. 33a.)
I. A. 490. Flute (Chiriguano). Cane. Length 43 cm.

/79 cont./

534 I. A. 494. Flute (Chiriguano). Cane. Lgth. 41 cm. (Fig. 34a.)
[126] I. A. 495. Double whistle " " " 33.5 and 7 cm. (Fig. 34b.)

~~[126]~~ From the Chiriguano in Machareti I acquired two different kinds of flutes, the ones made of cane and the others made of wood. The two wooden flutes I. A. 491 and 492 (cf. Figs. 93a and 93b /see Fig. 33a and b, p. 89/) are of particular importance because of their similarity in form, and in the case of I. A. 491 of decoration as well, to a special kind of balance beam of the ancient Peruvians, and for that reason they have already been dealt with several times in ethnological literature. These two flutes are doubtless quite old specimens which perhaps had already been used by several generations. [322] They are called "*sereré*" by the Chiriguano, and they are of hard wood bored from one end to the other. In the middle of the upper edge of the lozenge of the apparatus, there are two small perforations .. [301] A similar flute shown in a sketch by v. Rosen (299) shows that these perforations serve for a string to pass through, in order that the flute may be worn as a chest ornament. 534 174 171 Nordenskiöld (300) has already called attention to the surprising resemblance between these flutes and a special form of balance beam of the ancient Peruvians. These, numerous specimens of which are known, are no doubt classified as balance beams because of the fact that on some specimens /80/ the cord which passes through the horizontal perforation and which has at one end a weight and at the other end a loop, or some such similar thing for holding the objects that are to be weighed, has been preserved. V. Rosen, describing and showing in a drawing one of these Chiriguano flutes, which is like flute I. A. 491 except that it still has the cord which passes through the two holes on the upper

299. V. Rosen, *op. cit.*, p. 220.

300. Nord. 3, pp. 187 and 188.

Chane SF8

C /80 cont./

534 edge, puts forward against Nordenskiōld's deductions his opinion
174 that the ancient Peruvian objects of this form might originally
171 have been flutes and that they might have been used only exceptionally, in the event of necessity or only secondarily, as
C balance beams. Among the objects of this kind in the ancient
[114] Peruvian collection of the museum in Berlin so many specimens
C clearly show that they are balance beams that I cannot say that
[177] I agree with this opinion by V. Rosen (301). We must agree with V. Nordenskiōld's opinion that these wooden objects used by the ancient Peruvians as balance beams may have been accepted by the Chiriguano, not as balance beams, because the Chiriguano did not have the need to weigh anything, but as flutes. We must mention that with this kind of flute, open at both ends, two different sounds can be produced, depending upon whether the lower hole is left open or is closed with the finger.

The two Chiriguano flutes made of cane have six holes for varying the sound and one hole, at one side, for the mouth.
C Cf. Figure 39a /see Fig. 34a, p. 89/. Nordenskiōld, who shows
Ce such a flute in a drawing (302), is of the opinion that the Chiriguano and Chané received this kind of flute from the mestizos or whites, because such flutes provided with a hole at one side for the mouth do not exist among the other Indians of South America or among the ancient Peruvians.

C [113] 301. Cf. Max Schmidt, Kunst ūnd Kultur von Peru /Art and Culture of Peru/, p. 99, fig. p. 544, N. 8-10.

534 177 171 302. Nord. 2, Fig. 36 A.

/80 cont./

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The double whistle I.A. 495 consists of two pieces of cane joined together in the manner of Panpipes. In contrast to the flutes described in the preceding, the two tubes of these whistles have lips. One, which has four holes for making the sounds vary, measures 33.5 cm., and the other, which does not have such holes, is only 7 cm. long. A whistle of this kind, but not double, is shown in a drawing by Nordenskiöld (303).

303. Nord. 2, Fig. 36b.

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[171]

In addition to these musical instruments, Nordenskiöld describes a few others that he saw among the Chiriguano and Chané. Among them can also be found those round flutes which are used by many tribes of the Chaco and one of which is shown in a sketch by Nordenskiöld (304). They also have large

304. Nord. 2, Fig. 35.

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[237]
[824]

trumpets, which the Chiriguano call "angùahuasi," while the common trumpet is called by the same name as is the mortar, "angúa" or "angúarai." One can also find trumpets made out of a cow's horn or a calabash, which are blown at the upper end (305).

305. Nord. II, p. 119, Fig. 37 A and B.
Métraux I, p. 337, Fig. 35.

According to Nordenskiöld, the Panpipes, which consist of several flutes joined together, are rarely found among these Indians (306).

306. Nord. 2, p. 126.

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Plastic art is little developed among the Chiriguano and Chané. On rare occasions we find plastic art in the form of animals in the forms of the baked clay pottery of the Chiriguano (307).

307. Nord. 2, Fig. 41, N. 4, and Fig. 45, N. 20.

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/80 cont./

These pots are undoubtedly imitations /Plates XXXVIII-XXXIX appear here/ /81/ of ancient Peruvian models or of modern products. Outside of that there are shown in drawings by Nordenskiöld

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two dolls in the form of a man and a woman, made of wax, which served as toys for the children of the Chané of the Parapití River (308). Purely decorative plastic sculpture is mainly shown by most of the baked clay vessels intended for cooking foods, in the form of "ornamento hundido" /sunken decoration/, which is generally placed on the surface of the neck of these vessels, but it may also extend over the entire surface. Cf. Figure 48 /see p. 116/. In addition to the sunken decoration on the neck the vessel I.A. 414, shown in Figure 44, is decorated with a row of small pointed additions around the wall of the vessel. Linné shows in a drawing a piece of a Chané baked clay vessel, the surface of which is decorated with a border of baked clay placed in a zigzag around the wall of the vessel. Many of the vessels with smooth surfaces also have small additions and generally in pairs. They often have these instead of handles. In addition the baked clay dishes for eating and the dishes for frying /fritar/ maize are often provided with such additions. The handles of the baked clay vessels are not in the form of figures, but they can be plastically decorated in such a way that a groove divides them into two parts, which can be twisted around each other. Cf. Figures 46 and 49 /see p. 116/.

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Some wooden utensils also have primitive plastic ornamentation, such as the spatulas for stirring food and drink, the wooden dishes for eating, and the large dishes or platters on which food is kept. The handles of some of the spatulas for stirring food are carved in such a way that their edges form zigzag lines (cf. fig. I.A. 579 /not illustrated; see Pl. VIII, p. 20/) and the dishes often have additions such as some baked clay dishes also show. Cf. Figures 18 a and b and 19 /see pl. VIII, p. 50/.

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Drawings are also found on the surface of Chiriguano and Chané objects, in the form of paintings on the surface of baked

[Text continues on p. 214]

308. Nord. 1, Fig. 105.

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Plate XXXVIII

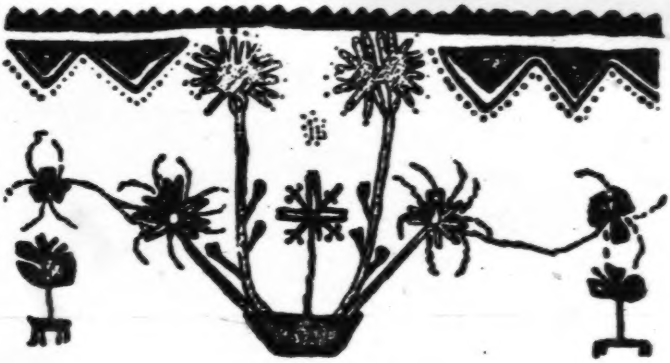

Fig. 145

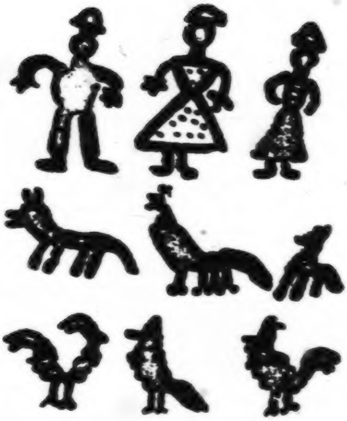

Fig. 146

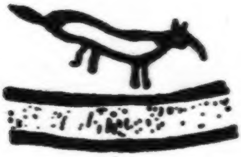

Fig. 147

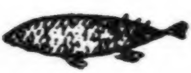

Fig. 148

/The captions are on p. 213./

Plate XXXIX

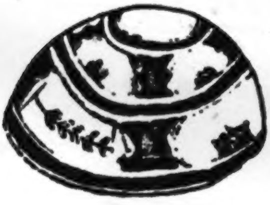
Fig. 149

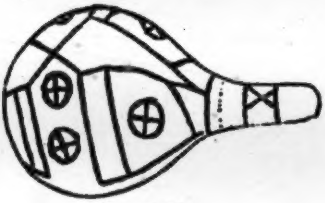
Fig. 150

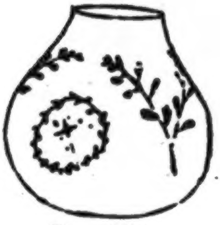
Fig. 151

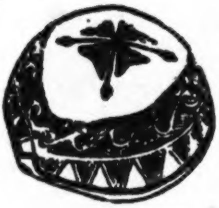
Fig. 152

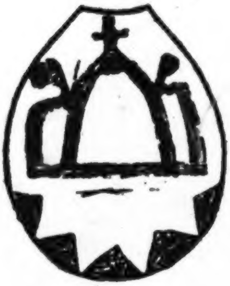
Fig. 153

/The captions are on p. 213./

/Captions for Plates XXXVIII and XXXIX/

531
532 Plate XXXVIII. Drawings on the surface of baked clay vessels and a cuya.

Fig. 145.	Phytomorphic drawings on the surface of the vessel I. A. 403 (Chiriguano). Cf. Fig. 64 /see p. 130/.
Fig. 146.	Anthropomorphic and zoomorphic drawings on the surface of the vessel I. A. 378 (Chiriguano). Cf. Fig. 63 /see p. 130/.
Fig. 147.	Zoomorphic drawing on the surface of the vessel I. A. 347 (Chiriguano). Cf. Fig. 65 /see p. 130/.
Fig. 148.	Drawing of a fish incised on the surface of the cuya I. A. 454 (Chiriguano).

Plate XXXIX. Drawings on the surface of cuyas and a calabash (Chiriguano).

Fig. 149.	(I. A. 456) Cuya.
Fig. 150.	(I. A. 451) Cuya.
Fig. 151.	(I. A. 466) Calabash.
Fig. 152.	(I. A. 452) Cuya.
Fig. 153.	(I. A. 458) Cuya.

Chane SF8
Izozo

/81 cont./

C Ce 531 clay vessels, in the form of incisings on the surface of cuyas and calabashes or flutes of wood or cane, in the form of pyrographic decorations on cuyas, and also, infrequently, in the form of tattooing on parts of the human body. The absolute difference between the drawings applied to the surfaces of baked clay vessels and those on cuyas and calabashes is surprising. C Ce [562] This difference is explained by the fact that the decorations on the baked clay vessels are done exclusively by women and those on cuyas and calabashes by men.

C Ce 531 17 The basic elements of the painting done on the surface of the baked clay vessels of these Indians consist of geometric designs which are completely different from those of the ancient Peruvians and untouched by modern European influences. No doubt these are the products of an old and indigenous art. But we do not know up to what point this originated among the Chiriguano and to what point among the Chané. Neither do we know whether the differences between the nature of the paintings of the Chiriguano in Machareti and that of the paintings of the Izozó of the Parapiti are only local differences or whether they are based on the difference between these two nations. But outside of that primordial decoration and mixed with it, there are foreign elements of decoration which we must reduce to ancient Peruvian models, and this is especially true of the drawings of plants on the surface of a Chiriguano vessel which Figures 64 and 145 show. One /82/ decoration, doubtless also phytomorphic, which appears repeatedly on the surface of the baked clay vessels, for example, on the vessels shown in Figures 67 and 75b, has a direct model in the form of a decoration that we know from the ancient Peruvian pottery of the last period of the C Ce 531 532 Inca Empire (309). Zoomorphic and anthropomorphic representations are found relatively infrequently among the decorations on the baked clay vessels. The quadruped shown on the surface

309. See Max Schmidt: Kunst und Kultur von Peru, p. 349, Fig. 1.

Chane SF8
Izozo

/82 cont./

C Ce 531 532 of the Chiriguano vessel I. A. 347 (cf. Fig. 65 /see p. 130/ and 147 /see p. 211/) and the way in which the road under this animal is represented show many reminders of similar representations of the ancient Peruvians. C Ce [171] The representations of animals and people on the surface of vessel I. A. 378 (cf. Figs. 63 /see p. 130 and 146 /see p. 211/), which in external form is quite modern, correspond to those of other South American Indians. Like them the Chiriguano also combine elements of geometrical ornamentation for the representation of zoomorphic or anthropomorphic motifs, for example, the graduated line for the representation of roosters and triangles for the body of women. Cf. Fig. 146 /see p. 211/.

C Ce 531 One principal difference between the decoration painted on the surface of the baked clay vessels and the decoration incised on the surface of cuyas lies in the fact that the painting of the baked clay vessel is limited to the decoration of the upper part of the exterior surface or to that of the upper rim of the interior surface of the vessel, that is, the decoration of a continuum, either wider or narrower, while the incisings on the cuyas decorate the entire exterior surface, more or less semiglobular, often making the center of the semiglobular surface the center of the concentric ornamentation.

Among the decorated cuyas I received from the Chiriguano in Machareti some have only incising and others only pyro-engraving. But most of them combine these two ways of producing a decoration. Several specimens of these decorated cuyas show the same decorative motifs with a surprising similarity. Without counting the stylized phytomorphic motifs, there can also be found among the incised decorations figures like the representation of a small fish (cf. Fig. 148 /see p. 211/) and of a chapel, clearly identified by a cross. Cf. Figure 153 /see p. 212/.

Among incised decorations we must still mention the concentric circumferences made on the surface of most of the Izozó spindle-whorls and various wooden spindle-whorls of the Chiriguano, and the decoration of the "serere" flute shown in

/82 cont./

C Ce 531 Figure 33b, which corresponds, as does also the form of this flute, completely to ancient Peruvian models. Also, the surface of the Chiriguano cane flute I. A. 494 (cf. Fig. 34a /see p. 89/) shows some incisings.

One of the tattooed decorations is shown in a drawing by Nordenskiöld, who found it on a woman's arm (310).

310. Nord. 1, Fig. 108.

Social Conditions among the Chiriguano and Chané

C Ce 114 With regard to the social conditions among the Chiriguano and the Chané-Izozó, I am unable to add to the few data which we knew on this subject because the situations in which I found myself when with these Indians were not appropriate for such investigations.

Ce 115 122 126 /83/ Among the Izozó whom I found in Toledo there were some who were designated as cacique. To one of these, who spoke Spanish perfectly, I owe the vocabulary of the Izozó language which I wrote down.
C 114 -197 622 I met the Chiriguano only in Machareti, where they had lived for a long time under the supervision of the missionaries and, at the time of my trip, under the chieftainship of one of their own fellows who exercised the functions of a commissioner /comisario/. Two other Chiriguano Indians whom I met in Machareti were identified as caciques.

C Ce 129 In order to complete my statements about the Chiriguano and the Chané-Izozó, I must make a resumé of what we know from the literature regarding the social conditions of those Indians, referring to Moreno's statements, which are based on old documents, as well as those of v. Nordenskiöld, which are based upon his own investigations.

C Ce 178 648 643 000 Naturally, many of the old Chiriguano and Chané social institutions have been lost since they lost their independence from the whites. Also, the power of the great caciques has diminished appreciably since they have been dependent on the whites. When Nordenskiöld

Ce 178 643 [114] [248] /83 cont./ when Nordenskiöld made his expedition, there was no longer a great cacique among the Chané on the Parapití River. The last great cacique had been Aringui, whose nephew, Batiraya, was a cacique, but he had refused the position of great cacique because he did not want to be too dependent on the whites (311).

C 631 [642] C [131] [175] According to what is said in older documents, the Chiriguano, after their immigration into the Cordillera, did not form a uniform community, a state, in the proper sense of public law. Formerly they had formed a federation of several parcialidades /subdivisions/. In the letter of Licenciado Cepeda (312) in the year 1585, it is said "that the Province of the Chiriguano, who are in the Cordillera between Santa Cruz and the city of La Plata, who are divided into three parcialidades, each distinct from the others, 25 leagues, although they communicate and help one another. One is the parcialidad of Vitupué, another that of Condorillo, and the other of Chiquiacá."

C 631 643 Of the two parcialidades Vitupué and Chiquiacá we know that they, at least originally, were each under the chieftainship of a great cacique, from whom they received their respective names. Vitupuera was the great cacique of the former and Chiaca the great cacique of the latter (313). With regard to the parcialidad

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311. Nord. 1, pp. 170 and 233.

312. Letter from Licenciado Cepeda giving an account of the war against the Chiriguano under the encomienda of Lorenzo Suarez de Figueroa, Governor of Santa Cruz, and under the Maestre de Campo, Fernando de Cazorra, through Tomina, and under Luis de Fuentes through Tarija. According to Moreno II, p. 113.

313. Moreno II, pp. 122 and 126.

631 /83 cont./

[643] of Condorillo, we do not have any evidence as to whether this whole parcialidad was under the chieftainship of a great cacique. [175 027 632] We only know that the town of Saigpuru was one of the most important and that it was the most feared by its enemies and that its inhabitants were defeated in the year 1779 by Don Tomás Leso (314).

314. Moreno II, p. 244.

631 632 643 103 According to the reports written by the Governor of Santa Cruz, Don Lorenzo Suárez de Figueroa, the Province of "Yvytupue," that is, the region governed by the great cacique Vitupuera, was made up of five large subdivisions. As can be assumed from the report cited, these subdivisions were in part made up of one town and in part of several towns and were, with the exception of one, governed by several caciques. Thus there is mentioned in the first place the subdivision "Taquirán and Caracará," probably meaning the towns which bear these names. As the caciques of this first subdivision, three are mentioned; thus the number of caciques does not correspond to the number of towns. Thus, we are not here dealing with a community which was established exclusively on a territorial basis. /84/ For the second subdivision three names are mentioned, Aguapea, Naipea, and Traibi. Thus it was probably made up of three towns. In this subdivision the number of towns, three, corresponds to the number of caciques. The third subdivision is called Tamborá. Thus it can be presumed that it consisted of but one town, and there is also mentioned but one cacique. The fourth subdivision is called Tendy, and three caciques of it are mentioned. It is stated that one of these caciques, called Abaqué, was the son of the cacique Tendy, thus of that cacique who gave his name to that subdivision. Of the fifth subdivision, Ayaguá or Cayaguá, as many as four caciques are mentioned (315).

315. Moreno II, pp. 123 and 124.

Chane SF8

/84 cont./

631 Also for the parcialidad of Chiquiacá besides its great cacique,
[643] Chiquiacá or Chiacá, 14 other caciques are mentioned, but it cannot be determined from these statements whether these are the names of successive caciques or of contemporaneous ones.

C We have interesting data from the 16th century on the way in
175 which the individual Chiriguano communities distributed among
648 themselves the different countries in which they were making
631 their depredations. In the "Confesión de Blas Negro," it is said "that to those of the province of caypuru fell the part of tomina, and those of coyagua to the churumatas, and those of tendi as far as misque and tiraque, and those of aguapea up to this road from poxo and santa cruz" (316).

316. Moreno,II, p. 120.

C
Ce
175 In the historical sketch placed at the beginning of this work, I
648 have already mentioned that the Chané, and also other tribes as well, were subjugated by the Chiriguano and incorporated as subjects into their communities. The Chané communities which
C
[728] had originally been in Chiriguano territory or its environs had
[648] been exterminated, until at the end of the 19th century, when the Chiriguano lost their independence because of the whites, the Chané were emancipated from their oppressors and once more inhabited their separate towns governed by their own great caciques.
Ce
175 We have an interesting item in the "Comentarios de Alvar Nuñez
643 Cabeza de Vaca" through which we know that the Chané in times past, before being subjugated by the Chiriguano, had a strong social organization and powerful great caciques. In Puerto de Reyes, Alvar Nuñez met a Chané cacique who had previously accompanied García on his return from Peru and later, after the murder of García by the Guaraní, had fled from them. Among other things this cacique declared "that in his land those of his race have a single headman who orders all and who is obeyed by all, and that there are many towns of many peoples of those of
000 his race" (317). The subjugated Chané were distributed among

317. Moreno II, p. 30.

C
Ce /84 cont./ The subjugated Chané were distributed among
175 the various social communities of the Chiriguano as subjects or
648 slaves. In the "Relación del Corregidor de Tomino Don Juan
162 Arce de Alvedia" in the year 1618, it is said that in the Province
[567] of Machareti, "which is Pilcomayo and its environs," there
lived scarcely 400 pure Chiriguano, among whom were distributed
5,000 Chané "to one 200, to another 100, to another 60, and in
C this way up to said number." In the Province of Charaguay 4,000
Ce Chané were distributed in the same manner to the 350 Chiriguano
175 of this province, and upwards of 1,000 Chané to the 200
648 Chiriguano of the Province of Guapay. As in other documents, in
567 this one as well, there is mentioned the ill treatment which
these subjects had to suffer from the Chiriguano and the hate
C which they had toward their oppressors (318). The Chiriguano
scornfully called the Chané "tapií," while they themselves were
called /85/ by the latter "cheya," that is, "my master" (319).

C
175 Although most of these subjects or slaves were made up of Chané,
648 there were also among them other Indians who had been subjugated
567 in the expeditions, for example, Chicha Indians (320), and among
the Chiriguano of Tendi also Guatuco Indians (321). According
to Techo (322), whose report was written in the second half of
the 17th century, the Chiriguano customarily sold some of their
slaves to the Spaniards.

Ce
[186] 318. Moreno II, pp. 250 and 104.

319. Moreno II, p. 254.

Ce
[567]
[648] 320. Moreno II, p. 207.

321. Moreno II, p. 117.

322. According to Moreno II, pp. 236 and 237.

/85 cont./

648 175 Outside of those subjects incorporated directly into the Chiriguano communities, several tribes of Indians subjugated by the Chiriguano were their tributaries, that is, the tributaries of their individual parcialidades. These tribes had to pay fixed tributes and to lend services as allies in war (323). Such tributaries of the Chiriguano of the province of Yvytupue were the Tamacocies, the Xores, and the Yurucarés. In the "Carta /letter/ from Don Lorenzo de Figueroa" of the year 1584 it says that the Tamacocies and Xores and Yurucarés had not assisted the Chiriguano of the parcialidad of Vitupue, seeing that they might be defeated by the Spaniards. From this report it can be surmised that as tributaries, they might have been obligated to aid their masters. From the "Confesión del Blas negro," who had lived for a long time as a prisoner among the Chiriguano, we learn what made up the tributes that the three tributary tribes had to pay to the parcialidad of Ybytupue (324). "They pay tribute in this way, the Xores poisonous herbs for their arrows, and the Tamacozies, Indian men and women, bows and arrows, and fish and game and macaws, and the Yurucares give them coconuts and turkey feathers and chonta palm for making arrows." Moreover the same source says that the Chiriguano of Tendi and Aparo, Aguapea, and Caripui had contracted with the Chuis-Indians of the town of Mísque to provide them "with powdered saltpeter, stone, sulfur, axes, crowns /coronas/, chipanos, scissors, knives, and other things" (325).

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323. Moreno II, pp. 121 and 125, 117.

324. Moreno II, pp. 121 and 125.

325. Moreno II, p. 121.

/85 cont./

C 631 643 [622] According to all that we learn from the old documents, the Chiriguano communities, that is, the parcialidades under the chieftainship of great caciques and the subdivisions under the chieftainship of ordinary caciques, had a very firm organization in comparison with other tribes of South American Indians. The C [199] great cacique commands his subjects and they obey him absolutely. It is likely that in this regard the example of the absolute rule of the neighboring Incas of Peru influenced the organization C CE 643 631 of the Chiriguano. Even at the time of Erland v. Nordenskiöld's trip in 1908, the Chiriguano and Chané caciques were very powerful in contrast with the caciques of the neighboring tribes of the Chaco. Even at that time there were great caciques, who governed a large territory made up of several towns, and ordinary caciques, who governed the inhabitants of a town or part of them. Thus, at the time of Nordenskiöld's trip most of the towns of the Caipipendi valley were governed by a great cacique named Taruiri. The great cacique Mandepora formerly had considerable power in and near Machareti, and the great cacique Maringay in CE 643 [562] the Iguembe valley. We have Nordenskiöld's interesting statement that women too can be great caciques among the Chané. Thus the great cacique of the Chané towns on the Itiyuru was a woman named Vuáyruyi, who had succeeded her late brother in that office. Because she was already old, she was replaced in her duties by her nephew Vocapoy, who was the eldest son of her brother and predecessor. /86/ Her son was favored as great cacique after Vocapoy (326). Among the Chané on the Itiyuru, and formerly among the Chané of the Parapití when they still had a great cacique, the office of great cacique was tied to a certain family, but it did not pass from father to son. Nordenskiöld recorded the genealogical tree of the family of the caciques of the Chané on the Itiyuru, according to which, after the great cacique Hinu Parava, two of the latter's sons successively succeeded to this office. After the death of the last of these, Hinu Parava's daughter, the above-mentioned Vuáyruyi, was great cacique, while the son

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326. Nord. 1, pp. 223 and 229.

/86 cont./

Ce 643 of her late brother and predecessor, as already mentioned, took her place in her duties. The one predestined for the office of cacique cannot begin his functions if he does not have ability and skill in discussion. The great cacique in the Caipipendi valley was considered incapable because of continual drunkenness, and he was replaced in his functions by one of his relatives (327). In

327. Nord. 1, p. 230.

the Chané towns on the Itiyuru the ordinary caciques too belong to Hinu Parava's family (328).

328. Nord. 1, pp. 170 and 129.

C Ce 643 301 302 293 As a symbol of chieftainship Nordenskiöld observed staffs decorated with silver and the so-called "Yandagua," which consists of a long rod adorned with a tuft of ostrich feathers and is carried by caciques at fiestas and dances. According to Corrado, the caciques formerly wore as a symbol of their office a large lock of hair on top of the head, which they called "yattira," and green stones as pendants in the ear lobes, and at the fiestas, in addition to the "yandagua" mentioned above, the "iguiripe," which was a staff carved with figures (329).

329. Nord. 1, p. 231.

C 756 643 622 At the side of the caciques a special position is held by the sorcerers, among whom the Chiriguano distinguish two kinds, the "ipáye," who are good and who can undo spells, and the "ipáyepótchi," who can undo spells, but who also cast them. The sorcerer is also above all the doctor who has the obligation of curing the sick (330). In general the occupation of sorcerer is separate

330. Nord. 1, p. 216.

from that of cacique. Only in Ivu did Nordenskiöld observe a case where a Chiriguano cacique was a sorcerer at the same time (331).

331. Nord. 1, p. 230.

C /86 cont./

178 The inequalities which formerly existed between the class of
565 the Chiriguano themselves and the class of their subjects, which
648 was for the most part made up of Chané, is no longer important
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[178] today, since the latter were emancipated at the end of the last
[648] century, and they again have their own great caciques and ordi-
[643] nary caciques. Beyond the fact that the family to which the
C caciques belong has a certain preference (332) today, scarcely

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332. Nord. 1, p. 230.

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433 any difference exists today among the members of the same
Chiriguano community with respect to their economy. But such
C a difference indeed exists among the various communities themselves,
184 depending on the conditions of production in the different places.
433 Also today, since the emancipation of the Chané, the work is
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465 distributed, more or less equally among the members of the com-
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[643] munity of the same sex. The great cacique and his wife take
[461] part in communal labor. Only a few Indians are exempt from
[476] this rule, and they are those who have accommodated them-
[464] selves to the modern situation and send members of their own
tribe to work as servants (333).

333. Nord. 1, p. 231.

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462 Inequality of practical importance exists almost solely between
the two sexes, and especially with regard to the distribution of
C labor. With regard to the supplying of /87/ necessities, this
[562] inequality between the sexes does not appear, but only in the
fact that the men and the women eat apart and the men in general
eat first and women and children later (334). Nordenskiöld has

334. Nord. 1, p. 189.

made up an exact scheme of the distribution of labor between
men and women (335) /there is no footnote bearing this number/.
According to this scheme, the following work is apportioned only
to men: hunting, planting and clearing, woodworking, twisting

/87 cont./

C 462 rope, making nets, plaiting mats and baskets, leatherwork, the manufacture of weapons, the decoration of cuyas and calabashes, and the building of houses. Only the following work is apportioned to women: carrying water, cooking, making fermented beverages, gathering fruits and roots, ceramics, making hammocks, spinning, Ce [462] and plaiting bands. The following work is apportioned to both sexes: fishing, with the difference that the women catch small fish in shallow water, while the men fish in deep water, planting and harvesting, cooking -- attributed in the preceding to the women -- in that men at times participate in the preparation of game, fetching firewood, which on most occasions is men's work, but among the Chané on the Parapití River women's as well, the raising of domestic animals, sewing and weaving, in that in some regions men also weave, although in general weaving is C 859 863 462 women's work. Children also participate, depending on their sex, in the respective work of their parents, particularly in the harvest (336) /there is no footnote bearing this number/, and in this way seeing and imitating, they learn from a very early age the work that they must do in later life.

C 361 592 I have already mentioned in the chapter on towns and houses that Chiriguano towns were formerly made up of only a few houses, each of them inhabited by up to 100 persons. Today, as C 178 592 593 [591] a general rule, only one family lives in each house, but often together with the husbands of the daughters, who live for a time before the nuptials and also during the first part of the marriage in the house of the mother-in-law (337). The Chiriguano clean a piece of ground for his daughter, one which the son-in-law can work, doing the planting and harvesting (338).

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337. Nord. 1, p. 176.

338. Métraux 1, p. 345.

/87 cont./

C 58 [302] The girl is nubile when, after the first menstruation, she has undergone a certain ceremony, which lasts until her hair, cut short, has grown out again to medium length. This ceremony of the girls, which is called "yimondia," consists of her being put in a kind of separate room inside the house. Until the following menstruation, she must stay on a diet and she must not eat anything but cooked maize and meal (339). Only in the C [262]

339. Métraux I, p. 320, note 3.

company of her mother may she temporarily leave the separate room to bathe and to take care of her other needs (340).

340. Nord. 1, p. 210.

C 581 304 We also learn from Nordenskiöld that the Chané boys from 10 to 12 years of age must also undergo certain ceremonies, which consist in having a man who is particularly expert in such matters pierce the lower lip (341) and put a small stick through the hole,

C [673] [239] 341. According to Métraux I, pp. 346 and 347 and Fig. 12, the Chiriguano formerly used for that purpose punches made of horn.

and his grandfather puts deep wounds in his body so that he may be valiant in battle and in hunting and takes him out in the morning, when it is cold, to bathe (342).

342. Nord. 1, p. 211.

C C 582 598 Chiriguano and Chané girls are watched over by their mothers /88/ until their marriage (343), and illegitimate children are

343. Nord. 1, p. 170.

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[illegible]
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rarely born (344). Marriages are made among the Chané by a

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344. Nord. 1. p. 207.

method whereby the young man who wishes to marry sends several pieces of game to the girl's parents. He puts firewood in front of her house, and, if it is used, this signifies consent. But only after having worked for one year for his future mother-in-law can he marry the girl. The night before the wedding, which is celebrated by drinking a good amount of chicha, the young man sleeps with the girl (345).

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345. Nord. 1. pp. 211 and 212.

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While young men have but one wife, older men, and particularly caciques, often have several wives. Thus the substitute great cacique on the Itiyuru had four wives, who lived in different towns, and the cacique Maringay had two wives, who lived together (346). Marriage between brother and sister is prohibited,

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346. Nord. 1. pp. 212 and 213.

while cousins may marry (347).

347. Nord. 1. p. 212.

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Certain foods are forbidden to the pregnant woman. Thus, among the Chané on the Itiyuru a pregnant woman cannot eat doves. But they do their work until they give birth (348). After

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348. Nord. 1. p. 206.

a child has been born, the man must go through the "couvade," which means that he must remain lying down for several days and must stay on a certain diet. Among the Chané on the Parapití [illegible] for the first few days he may eat only cooked maize and maize soup,

/88 cont./
Ce 846 but no meat (349). Later he can eat sweet potatoes. When the
ce 553 551 603 baby begins to walk, he is given one name at most, not by his
parents, but by his grandparents. Nicknames are often added to
Ce 736 the proper name later (350). Orphans are brought up by their relatives (351).

C 721 From the time they first immigrated to the Sierra de la
Cordillera, the Chiriguano, that is, their parcialidades, made
war or attacks on the neighboring Indian tribes or the Spaniards.
In the historical sketch placed at the beginning of this work, I
C have described these hostilities in broad outline. Their weapons
[411] of war were bows and arrows and the club. The caciques were
[701] also war chiefs. According to what one Chané cacique told
[727] Nordenskiöld, these Indians formerly had the custom of bringing
home the heads of their dead enemies and of showing them during the fiestas in the town square (352). The Chiriguano capacity
C 175 721 for war was still recognized by the Spaniards in the 16th century.
In the "Declaración de Sebastián Pérez Chamoso" in 1571, it is
said of them: "With the inventions and tricks and mode of war
that they have, they have done and are doing said damages unto the
Spaniards, Indians, and workers that are in the said fields" (353).

C 726 Before the Chiriguano launched their attack upon King Guacane,
they reconnoitered with spies the Llanos of Grigota where the

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349. See Métraux I, p. 320, note 3.

350. Nord. 1, p. 208.

351. Nord. 1, p. 210.

352. Nord. 1, p. 172.

353. Moreno II, p. 107.

726 /88 cont./

712 King was (354). Their towns, described in the preceding, were

354. Moreno II, p. 87.

175 212 248 fortified by blockades, in addition to their natural position. Ruiz Diaz de Guzman on his expedition against the Chiriguano found a town near the Pilcomayo which was fortified by two concentric blockades of stone and wood (355). We find interesting data

355. Moreno II, p. 252.

about the fortifications that the Chiriguano made during their wars in the "Relación y breve noticia de lo sucedido en la guerra de Chiriguanos que se ha hecho este año de 1729 por orden /89/ del señor Virrey y Real Audiencia de Chuquisaca por el Padre Bartholomé de Mora /Report and brief note on what happened in the Chiriguano war that took place in this year of 1729 by order of the Lord Viceroy and Royal Audiencia of Chuquisaca by Father Bartolomé de Mora/" (356). These fortifications are described

[113] 356. Unpublished /inedito/ manuscript published /publicado/ by Professor A. Posnansky with an introduction and notes by Dr. A. Métraux. (Revista del Instituto de Etnologia de la Universidad de Tucuman, Vol. II, No. 1, p. 126.)

in the following way: "Continuing on their way (the Spaniards and Chiquitos), now by the light of day, at about a league they found blocking the way a very strong and well placed trench with very heavy stakes stuck in the ground, which, hewn like planks, had loopholes through which they shot arrows. Here considerable resistance was met, because the trench was very well fortified and the Indians who defended it were numerous." In another place it says: "They went on, all now being together, and they arrived at the place where the enemies had fortified themselves.... The fort was a ravine cut like a wall, which had

C 175 712 648 /89 cont./

only one way up, very narrow and steep, which, sown with thorny branches, made it more impenetrable. On the eminence of which they had entrenched the gate with stakes stuck into the ground."

C Ce 178 648 721 Today the Chiriguano and Chané no longer make war upon other Indians, aside from the fact that the Chané on the Parapití occasionally go on expeditions against the Tsirakua Indians (357).

Law

C Ce 671 177 178 Because the white authorities intervene more and more in the original, juridical traditions of the Chiriguano and Chané, many of them no longer exist today and also, from the few data which Nordenskiöld gives regarding this matter as of 30 years ago, many do not now correspond to the facts.

Ce 627 With regard to penal law, we find among these Indians a mixture between the principle of the "vendetta" and the practice of penal law. Among the Chané on the Parapití, most crimes, Ce [685] and robbery in particular, were settled by means of the duel. In the case of theft, the one who has stolen and the one who has been robbed appear, each with his relatives, in the town square Ce 692 642 68 to fight each other. Only homicide, the seduction of a woman, and sorcery, were decided by the great cacique as judge. Homicide, which formerly occurred among the Chané in the form of poisoning with poisoned chicha ("bád dyási"), and sorcery were punished by the burning of the criminal. The seducer of a woman lost his property (358). According to statements of the substitute great cacique of the Chané on the Itiyuru, it was the principal obligation of the cacique to avoid the vendetta by sending criminals to another region so that they would not be killed. Thus thieves, after having received 50 lashes, were sent to another town. A murderer was condemned to work up to half a year for the family

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357. Nord. 1, p. 171.

358. Nord. 1, p. 232.

Ce /89 cont./

692 643 28 of the deceased (359).

359. Nord. 1, p. 231.

C 421 Private property is highly respected among the Chiriguano. According to Métraux, even the closest relatives cannot make use of the property of one of them without his consent. C 423 The possession of a piece of land is guaranteed to a Chiriguano by planting any plant on it or by clearing the circumference of the land required and making large slashes in the trees. When he selects a plot for his planting, the Chiriguano examines it carefully to determine that there are no traces of a previous planting (360).

360. Métraux I, pp. 334 and 340.

C 241 476 [622] After the land selected for the planting has been cleared, relatives and friends are called together to help with the work. Formerly, the cacique of the town also took part by keeping watch for the workers (361).

361. Métraux I, p. 337.

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Religion

C Ce 797 771 178 538 In their many years of activity the missions have naturally influenced notably the religious notions of the Chiriguano and Chané. Most of them today are Christians. Some still retain part of their primordial ideas, expressed in their legends. I shall limit myself here to referring the reader again to the Chané legends taken down by Nordenskiöld (362) and mentioned several times in the preceding.

362. Nord. 1, pp. 251-296.

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000 preceding. I must also cite A. Métraux's publication, "Les
792 Hommes-Dieux chez les Chiriguano e dans l'Amérique de Sud
[113] /Men-Gods among the Chiriguano and in South America/" (363).

363. In the Revista del Instituto de Etnologia de la Universidad Nacional de Tucumán, Vol. II, No. 1, Tucumán, 1931.

in which he deals with the cases, repeated several times, in which some individuals among the Chiriguano appear as Messiahs and, acquiring many proselytes, gave the mission administrations much to do.

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[126]

Plaited Objects Used in Religious Celebrations, from the Collection

I. A. 1439. (Chiriguano) Length 70 cm. (Fig. 43b.)
I. A. 1440. " " 37 cm. (Fig. 43a.)

[171] Plaited objects like those mentioned above are also very com-
mon among the Paraguayans and made in the same way. This
796 custom of making such plaited figures and having them blessed,
797 as the Chiriguano also do, is connected with the Catholic ritual,
177 and the Chiriguano no doubt received it from the missionaries along
with the other rites of the Catholic religion (364).

364. See the opposite opinion of Métraux I, p. 462.

532 The masks that the Chiriguano make to carry during the Carnival
[527] fiestas are also modern objects. Some such Chiriguano masks are
shown in drawings by Nordenskiöld and Métraux (365).

365. Nord. 1, Fig. 119. Métraux I, Plate 86 and Fig. 121.

Chane SF8
Mojo SF15

/90 cont./

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The Language

Ce I have already mentioned above that the Chané originally
197 spoke a language different from that of the Chiriguano, but that
during the long period of their captivity they adopted the latter's
Ce language. A cacique of the Chané of the Parapití, named
198 Batirayu, told Nordenskiöld that some of the Chané still knew a
few words of their original language and that today it had the
Ce nature of a secret language. Thus there are still often employed
195 invectives of the original Chané language, such as "karitimisóyti,"
which the Indians translated as equivalent to "son of a whore."
Ce 533 Songs in the original language can also be found for example,
197 "siparakinánoye, siparakinánoye, siparakinánoye, tonéya, tonéya,
tonéya, tonéya," which they cannot translate, however.
Ce Nordenskiöld, with much effort and patience, was able to take
114 down six words of the original Chané language in the town of
197 Huirapembe on the Parapití, where a few Chané Indians who
still knew their original language were said to be living. From
Ce the comparison of these six words with the corresponding words of
[194] the Mojo language, a great similarity was apparent; thus there
can be no doubt /91/ but that the Chané originally belonged to the
Aruaco /Arawak/ linguistic group (366).

366. Nord. 1, p. 157.

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Translation	Original Chané	Mojo (367)
Water	úne	une
Maize	sopóro	soponi
Fire	yucu	yucu
Dog	tamúco	tamucu
Good	liqui	itico
Mouse	cóvo	cozo

Ce
M
[113]

367. According to Father Pedro Marban, Arte de la lengua Moxa con su vocabulario y cathecismo /Art of the Mojo Language with its Vocabulary and Catechism/. Republished by Julio Platzmann, facsimile edition, Leipzig, 1894.

Chane SF8
Izozo

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Vocabularies of the Chiriguano of Machareti and of the Izozó of the Parapití River

Notes on the Alphabet of the Vocabularies

In publishing below the Chiriguano and Izozó vocabularies which I took down in Machareti (Chiriguano) and Toledo (Izozó), I use the same alphabet as in my previous publication on the vocabulary of the Guarayú language in this same journal (Vol. III, No. 6).

Vowels

a; e; i; o; u. : long vowels.
a; e; i; o; u. : short vowels.
ã; ẽ; ĩ; õ; ũ. : nasal vowels.
ɨ : gutteral vowel (as in Guaraní and agua).
è = ä in German (as in: Bär = bear).
ü = ü in German (as in: Übel = bad).
ai; au; oi are dipthongs.
au = au in German (as in: Auge = eye).
oi = eu in German (as in: Teufel = devil).
aĩ is a nasal dipthong.

The apostrophe after a vowel (a'i; a'u; o'i) indicates that it does not form a dipthong with the following vowel.

Consonants

The consonants used in the Chiriguano and Izozó vocabularies are the following:

b; d; (f is not used); g = g in German (as in Garten = garden); h is always aspirated as in Guaraní; j = j in Spanish (as in jabón); k; (l is not used) m; n; p; r; s = c in Spanish before i (as in cielo); t; v = w in German (as in Wagen = cart); y = y in New York, is exclusively used as a consonant; z = z in French; ch corresponds to the ch in Spanish; sh = j in French, as in je = I).

The accented syllable of the vowels is indicated by means of the acute accent. /The word list, pp. 92-111, and the bibliography, pp. 111-115, are omitted in the translation; see the foreign text./

OGO

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/For information on the various types of spindles in use among the Chiriguano and Chane Indians, see category 283./

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/Since Métraux believes that the Chiriguano are actually descendants of the Guarani, data in this source which have been specifically subheaded for the Guarani file, in regard to culture contacts and foreign relations, may equally apply to the Chiriguano. The researcher is therefore advised to consult text category 116, pp. 6-25 for this additional data./